SOUTHERN AUTOMOTIVE JOURNAL

JULY, 1956

SERVING THE 19 SOUTHERN AND SOUTHWESTERN STATES

Let's Slap Death's Face page 49

GM's Free Piston Engine page 58

Coping with the Silicones page 66

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Volume 36 Number 7

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SOUTHERN AUTOMOTIVE JOURNAL

Covering Automotive Sales and Service

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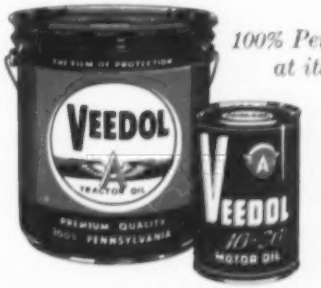

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NEW! Mighty Midget Pliers. You'll like the perfectly balanced feel of these pliers for working on small objects or in tight places. Straight nose No. 281, chain nose No. 282, round nose No. 283, end-cutting nipper No. 284, diagonal cutting No. 285, and flat nose No. 286. Only 4" to 4¼" long. Properly heat-treated with sharp, induction hardened cutting edges.

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Here are just a few of the many new pliers recently added to the broad PROTO plier line to help you do a "professional quality" job every time. Features include fine alloy steels, sturdy construction, carefully fitted joints, correct leverage, properly shaped teeth, positive cutting edges, ease of operation, comfort. So get the right plier for your job—from your PROTO dealer. Send 10¢ for catalog of entire line to **PROTO TOOLS**

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Automotive SPOTLIGHT

July, 1956

Profits from used-car sales have been picking up lately. This brings up a point which one long-time factory field man pointed up in an off-the-record conversation with editors of SAJ: The dealers making the most profits today are generally the veterans who have a background of being used-car merchandisers. As proof he cited one dealer handling his line of cars who, he said, made $300,000 before taxes last year. But profits of this stripe were not being reported generally by franchise holders. Many of them--and the National Automobile Dealers Association--feared that a new record of low, or non-existent, profits would be experienced this model year.

Bigger volume, lower per-unit profit were reported last month by the South's biggest General Motors dealer. R. E. Dumas Milner, the Kosciusko, Miss., lad who started out with a service station less than a generation ago and today manages half a dozen Chevrolet and Pontiac franchises from his Jackson, Miss., headquarters, told a New York press conference he had not been able to get enough Chevrolets to meet his demand. New York GM officials quickly said that remark was being shunted on to Chevy's Central Office at Detroit for action.

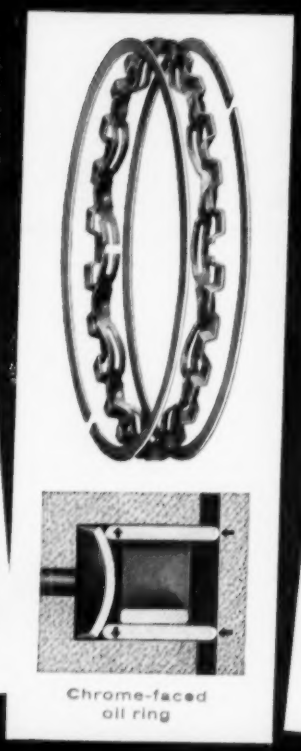
Milner, like Don Allen, the nation's big Chevrolet dealer, wasn't singing the blues for a second. Both magnates were planning for new sales peaks. For Milner it was a matter of paying bigger salesmen's bonuses and allocating a heavier percentage of income to advertising and other forms of promotion.

Pay bonuses monthly, quarterly or annually? That's a question often perplexing management whose sole goal is results. Robert F. Pulliam, president, has adopted a system of paying department heads at Pulliam Motor Co. (Ford) in Columbia, S. C., by the month, withholding only a small percentage to care for inventory adjustments and some other fluctuating elements in a profit statement which can't be figured monthly. "The system works; we can really tell a big difference," commented Pulliam.

Garagemen continue to expand their drive for a national association. Latest highlight was the formation of an Ohio association which sprang from the nucleus of half a dozen live-wire local groups. This birth added weight to the prospects for a bigger-than-ever convention when the Independent Garage Owners of America holds its annual convention at Toledo next June.

Buick to go to second place? With Chevrolet widening its margin of production over Ford, some Buick dealers over the South last month said that they believed Buick would produce a million units because of the demand they anticipate for the '57's. Several such dealers were clearly all hepped up over advance factory descriptions of what the new cars would be like. Buick should advance to second, they said, but no Ford dealer could be found who felt like agreeing with that.

GM shot back at the doctors last month to defend its panoramic windshields. The 'shields "are far and away the safest we have developed," said Charles A. Chayne, VP in charge of the engineering staff. Earlier Dr. Dupont Guerry of the Medical College of Virginia, Richmond, called the wraparounds "diabolical devices, from the visual standpoint, in which all basic optical principles have been completely ignored."



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Sealed Power Cylinder Sleeves

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SEAL OF PROOF POWER PRODUCTS

Automotive MARKETS

Belfie of Buick Sees South on Up and Up

SOUTHERN economy will be "on the up and up for the next 20 years," Albert H. Belfie, Buick's general sales manager, said at Charlotte, N. C., recently.

People, he said, "are wanting to come South."

The reasons? Natural resources, new and diversified industries and atomic projects, "combined with a natural desire to move to a better climate."

He recalled that last year Buick's southeastern sales were up 45% in contrast to a national average of 37%.

As to this year's slower market he said that "about 500,000 cars were sold last year that would normally have been included in this year's market. The public expected a price increase to follow the 1955 wage settlement."

He foresaw a bright spending future, pointing out "there is more disposable income today than ever before."

Biggest Chevy Dealer Shows Sales Climb

CONTRARY to reports indicating a general decline in the retail automobile market, Don Allen, world's largest Chevrolet dealer, revealed that his organization's sales for the first five months of 1956 totaled 16,908 cars and trucks, a 12.5% increase over the same period last year.

He said these figures represented a dollar volume of $28,000,000 compared with $22,800,000 last year.

"We are particularly proud of our sales accomplishment considering the general industry decline of 25.4%," said Allen.

He attributed the achievement to the aggressiveness of his organization and the popularity of his product. Allen pointed out that national Chevrolet sales were down only 6.6% compared with a decline of 22.1% for its nearest competitor.

Last year Don Allen was the first dealer ever to sell over 40,000 cars in one year, and expects to top his own record in 1956.

Buick Cites Big Rise In Parts Inventory

THE phenomenal growth of the automotive industry during the last ten years has forced manufacturers to increase their parts inventories by as much as 400%, Paul E. McCracken, manager of Buick's parts and accessories division, reported last month.

"Our inventory has increased from 3,500,000 to 15,000,000 parts since 1946," McCracken said, "and the number of different parts stocked has also jumped—increasing about 50%."

In 1946 Buick stocked 20,000 different parts to provide service for about 1,600,000 Buick owners. Now 30,000 parts are needed for the more than 4,000,000 Buicks on the road today.

McCracken also reported that the sales volume of replacement parts and accessories in the industry has increased nearly 150% since the prewar era, jumping from $.7 billion in 1941 to about $1.7 billions in 1955. To serve that increased market Buick has obtained 13 regional warehouses to expedite deliveries to individual dealers.

"The big problem is that nearly 75 per cent of Buick's 20,000 different parts are pretty much inactive," McCracken said. "They are kept in Buick's main warehouse in Flint where most of them just gather dust, waiting for the day when a Buick owner suddenly discovers he needs one of these seldom-used parts. They aren't moved often, but they've got to be ready when the need arises."

McCracken stated that the 22,000 parts stocked in the main warehouse at Flint actually account for less than one per cent of total Buick parts business.

"About 95% of dealer parts volume comes from only 2,700 of Buick's 30,000 different parts," McCracken said. "Those parts are stocked by nearly every dealer and are available for immediate service."

Vacation Trek Southward Is Biggest in History

SOUTHBOUND summer vacation travel this year will be the heaviest yet, according to an estimate based on inquiries received in eight major eastern cities (and Texas) by the Tourgide Bureau of Gulf Oil Corp.

"The old concept of southern states solely as winter resorts will be wiped completely off the slate by this summer's vacationing tourist," said one bureau official. "The automobile is giving the South a year-'round season and the majority of motorists appear to have Florida marked for their destination."

Besides the once-a-year vacation, the inquiries show this summer will see more weekend driving than ever. A major factor will be improvement of present state parks and the opening of new ones, giving the city-dweller economical outdoor recreation within weekend range.

One long-term trend in the survey is that motorists are more interested in reaching their destination rapidly than in the beauties of the trip. While a substantial number still fill in the request card space asking for the "scenic" route, more are wanting the "quickest" express road.

Maps with their route marked from start to destination are the most requested information of motorists, since increase in number and quality of roads has made informed advice on "the best way to get there" increasingly important.

The bureau plans to distribute 11 to 12 million road maps this year. Even with this volume, it said, less maps per motorist will be distributed than in some prior years because of a trend to regional maps and because motorists are becoming "map conservation" minded.

"Now hear this," said Witherby...

"You have asked for it, my good woman. You have asked why automobile dealers expect so much more from me as an Associates representative than they do from others. You will now listen. But good."

"Well all *right*," said Mrs. Witherby. "I didn't mean . . ."

"First, my chickadee, they expect more because they *get* more. For instance, I give 'em Associates' complete one-stop finance and insurance service—fast. They sell the car and get an Associates okay on the financing all in one sitting. That means they keep the customers right in their pockets. They don't send 'em out looking for a loan somewhere—and, baby, a bird in the hand is worth two on the prowl."

"No need," said Mrs. Witherby, "to mix metaphors."

"Don't change the subject!" cried Witherby. "What I meant is, they've got the deal closed and in the cash register before you can knit one, purl two." He took a breath.

"Furthermore, I'm a *specialist* in auto finance. I am in business to help the dealer *all* the time, give him a *complete* service, not just skim the cream. I'm there to keep his customers happy, keep those buyers coming back to him, help him get more time business. Of *course* he expects more from Associates and me. From us he gets the simplest paperwork in the business. He gets sales aids, displays, co-operation. He gets . . ."

"Tired of hearing you talk," said Mrs. W. "So Associates is terrific and you're terrific and every dealer within hearing should call you up tomorrow and get full information. Now take your shoes off and relax."

says Old Sage

THE PROSPEROUS PRO OF AUTOMOBILE ROW

"Mrs. W. makes sense. A full time auto finance specialist is good to have on call. Better give Associates a ring."

Associates
SOUTH BEND, INDIANA

Associates Investment Company **Associates Discount Corporation** **Emmco Insurance Company**

Automotive NEWS BRIEFS

Painting by Radiation Anticipated by Ford

WHITE cars into colored with the use of the electromagnetic radiation gun was one "future possibility" described by Del S. Harder, executive vice-president of Ford Motor Co., at the company's engineering forum held in Dearborn.

Should the painting technique become a reality, all cars shipped from the factory would be painted with photo-sensitive pigments of a neutral white shade. The gun could be used by the dealer to produce any color desired by a customer.

The process would mean a "tremendous savings in manpower and plant equipment" for the factory, he said. Certain spray booths and paint storage facilities could be eliminated.

Car washing would be a thing of the past with the new process, according to Harder, who said, "This paint would almost be self-cleaning. It would have the ability to actually expel dust and dirt from its surface when passed through an energy field."

He also predicted "in the very near future" that molten steel will be taken right from the furnace and cast continuously through water-cooled copper molds into semi-finished slabs.

August 26-27—Annual convention of Georgia Automobile Dealers Association, General Oglethorpe Hotel, near Savannah.

August 26-29—Annual convention of Automobile Dealers Association of West Virginia, Greenbrier Hotel, White Sulphur Springs.

Sept. 20-22—Annual convention of Automotive Parts Rebuilders Association, Edgewater Beach Hotel, Chicago.

Sept. 23-25 — Annual convention of Texas Automotive Dealers Association, Commodore Perry Hotel, Austin.

Sept. 27-29—Annual convention of Arkansas Automobile Dealers Association, Marion Hotel, Little Rock.

Sept. 30-Oct. 2—Annual convention of Tennessee Automotive Association, Gatlinburg.

Oct. 4-5—Annual convention of Kansas Motor Car Dealers Association, Hotel Baker, Hutchinson, Kan.

Oct. 14-16—Annual convention of Automotive Trade Association of Virginia, John Marshall Hotel, Richmond.

Oct. 21-22 — Annual convention of Oklahoma Automobile Dealers Association, Skirvin Hotel, Oklahoma City.

Oct. 21-23 — Annual convention of Florida Automobile Dealers Association, Fort Harrison Hotel, Clearwater.

Oct. 21-23—Annual convention of National Independent Automobile Dealers Association, Hotel New Yorker, New York City.

Oct. 21-23—Annual convention of Automobile Dealers Association of Alabama, Buena Vista Hotel, Biloxi, Miss.

Oct. 25-26 — Annual convention of Automotive Wholesalers of Texas, Statler-Hilton Hotel, Dallas.

Oct. 28-29—Annual convention of Automotive Wholesalers Association of Louisiana, Monteleone Hotel, New Orleans.

Nov. 4-6—Annual convention of Mississippi Automobile Dealers Association, Buena Vista Hotel, Biloxi.

Nov. 11-13 — Annual convention of Kentucky Automobile Dealers Association, Seelbach Hotel, Louisville.

Nov. 17-18 — Annual convention of Florida Automotive Wholesalers Association, Hotels San Juan and Angebilt, Orlando.

Jan. 26-30—Annual convention of National Automobile Dealers Association, Municipal Auditorium, San Francisco.

Feb. 4-7—30th anniversary National Auto Accessories Exposition, Coliseum, New York City.

Feb. 9-16—Albuquerque Auto Show, State Fair Grounds, Albuquerque, N. M.

April 4-7—Southwest Automotive Show, Fair Park, Dallas, Texas.

April 25-27 — Biennial Southeast Automotive Show, Dinner Key Auditorium, Miami, Fla.

May 9-12 — Midwest Automotive Service Industries Trade Show, St. Louis, Mo.

May 12-15—Annual convention of Automotive Engine Rebuilders Association, Sheraton-Cadillac Hotel, Detroit.

June 20-23, 1957—Annual convention of Independent Garage Owners of America, Toledo, Ohio.

"Boss, there's a representative from the factory here begging to see you."

You, sir, need chrome here to handle ring jobs best ...most profitably!

HERE'S WHY. *ALL* car manufacturers recommend chrome compression rings for replacement. Most use chrome compression rings as original equipment. A full chrome ring set lets you handle the tough jobs right the first time—no costly comebacks. Remember—check for chrome on the top groove compression ring, on the side rails of the oil ring.

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PRE-SEATED Krome-Oil Piston Ring Sets

American Hammered pre-seating makes installing chrome ring sets positive . . . no apologies for performance failures . . . no costly comebacks. Pre-seating is a factory-applied lapping process equivalent to hundreds of miles of engine operation—assures instant oil control.

Don't forget. Krome-Oil has the All-in-one ring envelope—a real time saver and help in the shop.

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Handle the tough jobs right the first time . . . avoid costly comebacks, INSTALL KROME-OIL

Automotive NEWS BRIEFS

(Continued from page 9)

Serving as a graphic warning to any reckless drivers, this upturned automobile on Route 50 on the eastern outskirts of Cambridge, Md., is also an advertisement for a dealership. A lot of careful work went into positioning this car to avoid later repairs to the top.

Milner Enterprises Ups Ralph M. Garrard

PROMOTION of Ralph M. Garrard to executive vice-president of Milner Enterprises, Jackson, Miss., has been announced by President R. E. Dumas Milner. Garrard, formerly vice-president of Milner Pontiac Co., Little Rock, Ark., will cover the company's five-state dealership chain.

Purchasing Garrard's interest in the Little Rock dealership, Horace Terry became vice-president. He was formerly new-car sales manager at Dumas Chevrolet Co., New Orleans, La.

Julius H. Lile, formerly assistant general manager of Dumas Chevrolet Co., has purchased the dealership interest of Charles Burnham at Milner Chevrolet, Inc., Fort Worth, Texas, and is now vice-president. Burnham has returned to the New Orleans dealership in an executive capacity.

Mercury Moves Burke

Mercury Division of the Ford Motor Co. has named J. Basil Burke, formerly of its Los Angeles district, sales manager for Virginia, Maryland, eastern North Carolina and the District of Columbia. Before joining Mercury in 1952, Burke was regional sales manager for Willys-Overland in Atlanta.

Air-Conditioned Olds Increase Rapidly

CONSUMER demand for factory-installed 1956 Oldsmobile air conditioners for an eight-month period ended in May has increased more than 50% over the comparable period last year, according to J. F. Wolfram, Oldsmobile general manager and vice-president of General Motors.

During the same period, the number of package units installed by Oldsmobile dealers at point of sale rose more than 100% over the same eight-month span last year.

Figures released by Oldsmobile's chief executive showed that from October, 1955, through May, the number of factory-installed air conditioning systems totaled 18,470 as compared with 12,212 units for the same period ending with May, 1955.

The number of units installed by Oldsmobile dealers from October, 1955, through May, totaled 3,320, or more than double the 1,637 dealer installations recorded for the similar period last year.

American Motors Ups Isbrandt

R. H. Isbrandt, formerly executive engineer for American Motors Corp., has been appointed director of engineering, Meade F. Moore, vice-president of automotive engineering and research, announced. Isbrandt had been chief design engineer for the company's automotive division since 1953 until his promotion early this year to executive engineer.

"In this one the motor's in the glove compartment."

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LACQUER PRIMER SURFACERS

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get a supply of the #44 Dark Gray and the #66 Red Oxide Lacquer Primer Surfacer. After you've used it in your shop you'll be glad you tried it.

Formulated for you — you name it!

This popular new Zac-Lac Lacquer Primer Surfacer is a high-speed undercoat that will improve the quality and the profit of every refinishing job. Its excellent filling and non-settling qualities speed up the work at the gun. Goes farther, too, due to the high solid content. Exceptional flexibility and adhesion to old auto finishes and bare metal. Guards against pinholing, giving it unusual color hold-out. Sands easier, smoother with wet or dry paper.

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MANUFACTURERS OF: • ENAMEL ACCELERATOR • SYNTHETIC ENAMELS • PRIMER-SURFACERS • PRIMERS • LACQUERS • THINNERS • COMPLETE AND ACCURATE COLOR MIXING EQUIPMENT

 (Continued from page 11)

Gil D'Andrea, director of design of Bassons Industries Corp., drives his newest design, the "Bassons' Star," for its first run. With its all-plastic body on a three-wheel chassis, the two-seater stands less than three feet high, is four feet wide and 10'5" long. It weighs 400 pounds and can go 80 miles on a gallon of gasoline at a cruising speed of 40mph, with an estimated top speed of 70. Designed as a utility car, it is said to be ideal for delivery, short hauls and as an unusual advertising medium for companies requesting special-built vehicles.

Too Much "Volume Tonic" Drinking Has Hurt Dealers, Kansan Asserts

Too much drinking of "volume tonic" has led to the non-profitable operations of many dealerships today.

That's the opinion expressed last month by J. M. O'Mara to members of the Kansas Motor Car Dealers Association, of which he is president.

He first cited a sign which read: "This is a non-profit organization. We didn't intend it that way, but that's how it worked out."

Then he said:

"The above sign is indicative of the present situation in far too many dealerships across the state of Kansas and the nation. The 'gimmicks'; the '$1,000.00 discounts'; the '$50.00 over cost' deals have exacted their toll. The many liquidations of dealerships, and the 'dealership for sale' advertisements are the inevitable result.

"In the past few weeks, while attending dealer council meetings and the NADA working conference in Chicago, I have observed that the universal question is:

" 'How can we get this great retail industry back on a reasonably profitable basis?'

"The consensus is that most of the disruptive 'wheeling and dealing' is being done by dealers who have drunk so deeply of 'volume tonic' that they don't know what it actually costs them to deliver a new car. Many of them really believe that 'one dollar over invoice' is 'one dollar of profit.' The many dealerships being liquidated testify to the asininity of this belief.

"If all of us would analyze our financial statements carefully to determine what it actually costs us to deliver and service a new car, then add a reasonable profit percentage to that figure before accepting a 'deal', we would soon have the business back on a profitable basis.

"Our business was founded on service to the customer *at a profit*. We are not in business merely to sell cars, but to provide essential services to the motoring public. Let's all work together to restore sanity and sound business to this great industry. If we don't, this sign may be just what you'll need in your office."

The dealer association president's comments were carried in the regular bulletin of the group.

Big W. Va. Buick Firm Sold

Hugh Stewart Motors, Inc., Charleston, W. Va., largest Buick agency in the state, has been sold to T. M. Gardner, also of Charleston, who has been secretary-treasurer and general manager of the firm for several years. The new agency will be known as Gardner Buick, Inc.

"Is your husband in? No? Well, that's my tough luck I guess."

GOLDEN GLIDE, Hercules and Husky SHOCK ABSORBERS

NOW manufactured by

GOLDEN GLIDE SHOCK ABSORBER CO.

Cleveland, Ohio

 (Continued from page 13)

The power of suggestion influenced this photograph of the Fordyce Chevrolet Pony League baseball team posed in front of a typical Chevrolet signboard. Even the expression on the faces are similar. The team, sponsored by W. A. Fordyce, Chevrolet dealer in Melbourne, Fla., was leading its league at last report.

J. W. Pickens Is NADA's South Carolina Director

J. W. PICKENS of Orangeburg, S. C., has been elected to succeed A. H. Easterby of Greenville as South Carolina's director of the National Automobile Dealers Association.

Pickens, an Oldsmobile-Cadillac dealer in Orangeburg, was president of the South Carolina Automobile Dealers Association from 1952 through 1954. He is one of only two South Carolina dealers who have held this position for two years.

A native of Tennessee and a graduate of Georgia Tech and Vanderbilt, Pickens has been admitted to the bar in Tennessee, but has been in the automobile business since 1926.

"He's in charge of trimming production schedules."

Oldsmobile Transfers Two To Atlanta and Memphis

LINDSEY G. Jones, formerly Oldsmobile zone manager in Memphis, Tenn., has been transferred to the Atlanta, Ga., zone, succeeding Joseph A. Poli, G. R. Jones, general sales manager, announced. Poli has been named Boston zone manager.

Claude W. Schulze, formerly zone manager in Portland, Ore., has been named Memphis zone manager.

Top: Joseph A. Poli
Above: Lindsey G. Jones

The new Atlanta manager was born in Augusta, Ga.

(More News Briefs on page 134)

STEP into a BIG, PROFITABLE SERVICE MARKET

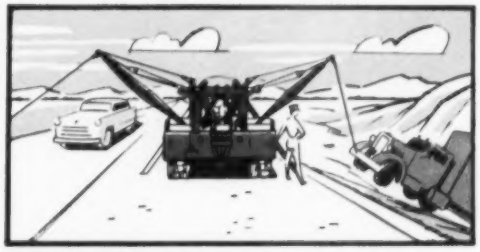
It's easy to step into a profitable Service Market when you are equipped with a HOLMES Heavy Duty Wrecker. Today, there is an increasing demand for Wrecker Service, and any operator in a position to handle all types of jobs including big trucks and buses can easily bring in a substantial amount of shop work. Being able to render Fast and Efficient Wrecker Service permits a shop to go miles out on the highway and get business it normally would NOT be able to obtain. Handling of "road calls" assures a continuous flow of work with *Big Profits* from Towing, Repairs, and Wreck Rebuilding.

HOLMES 650 WRECKER

Use of a HOLMES Heavy Duty Wrecker enables a shop to handle most pick-up or recovery jobs—even large Trucks and Buses. The 650 Model has power and capacity for Big, Heavy jobs, yet is fast and flexible for light cars and trucks. It has double swinging booms, each with 10 Ton capacity, outboard legs, dual controls and many other features to assure satisfactory and profitable use. See your jobber about a Holmes 650 Wrecker or write factory today for details.

ERNEST HOLMES CO., Chattanooga 7, Tenn.

SELLS SHOP SERVICES — Unlike other equipment a Modern Wrecker more than justifies itself in Advertising value. It's Big, Impressive and works as a traveling billboard.



PERMITS 100% SERVICE — Road Service is the First step toward 100% Shop Service. Without a modern Wrecker, no shop can expect to get the "Road Calls" or the job of servicing these customers.

VALUABLE BUSINESS ASSET — Owners of wrecked or disabled vehicles are the BEST of prospects . . . for all types of Shop Service or new cars.

HOLMES 650 MODEL

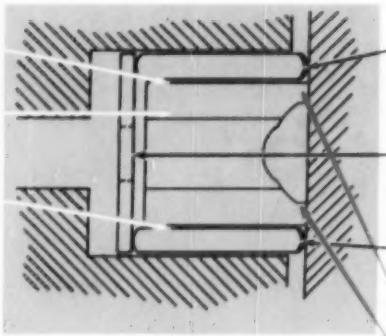
YOU DON'T
NEED X-RAY
EYES TO SEE...

WHY... CHROME CONTROL LEAK-PROOF RIN

....at open-throttle high speeds and at high-vacuum low throttle speeds

POSITIVE LOW SPEED "HIGH VACUUM" OIL CONTROL

Low speed oil creep around the side of the ring is prevented by using an accurately machined separator which supports the cylinder contacting rails throughout their depth and circumference and prevents rocking. This provides uniformly close clearance between the groove wall and the rail without reducing the free action of the ring in the groove.

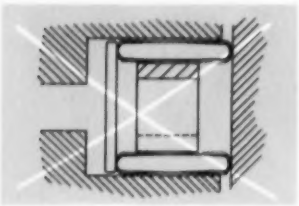


POSITIVE OIL CONTROL AT HIGH SPEEDS

High speed "flutter" or "surf boarding" is controlled by special flexible reverse loop expander which provides a more uniform high unit pressure on the two cylinder contacting rails. The rails are chrome armored but are prelapped and heat shaped for rapid break in.

WILL NOT GOUGE OR SCUFF CYLINDER WALL

The spacer will not gouge or scuff the cylinder wall because it is made of electric furnace iron. It is another oil ring in itself with built-in tension and two additional scraping edges. With the two chrome armored rails and the two oil scraping edges on the spacer, the 400 oil ring is really two rings in one.



ORDINARY STEEL SPACER

Ordinary Steel Spacer lacks broad support to prevent rocking in the groove. Sides of the spacer are not machined. Lack of machining prevents a uniformly close clearance between the groove wall and the rail, so oil passes around back of the ring.

ORDINARY STEEL RAILS

Ordinary steel rails are not cam shaped by heat treatment, therefore do not produce positive contact with the cylinder throughout its circumference.

HEAT SHAPED CYLINDER CONTACTING RAILS

Cam shaping by heat treatment produces the same "light tight" fit in cylinders that exist in piston rings that are individually cast to a cam shape. This cam shaping exclusive with McQuay-Norris is very important where the bearing edges are chrome armored. When these chrome surfaces are prelapped, it produces positive contact with the cylinder throughout its circumference and assures efficient trouble free ring and cylinder life.

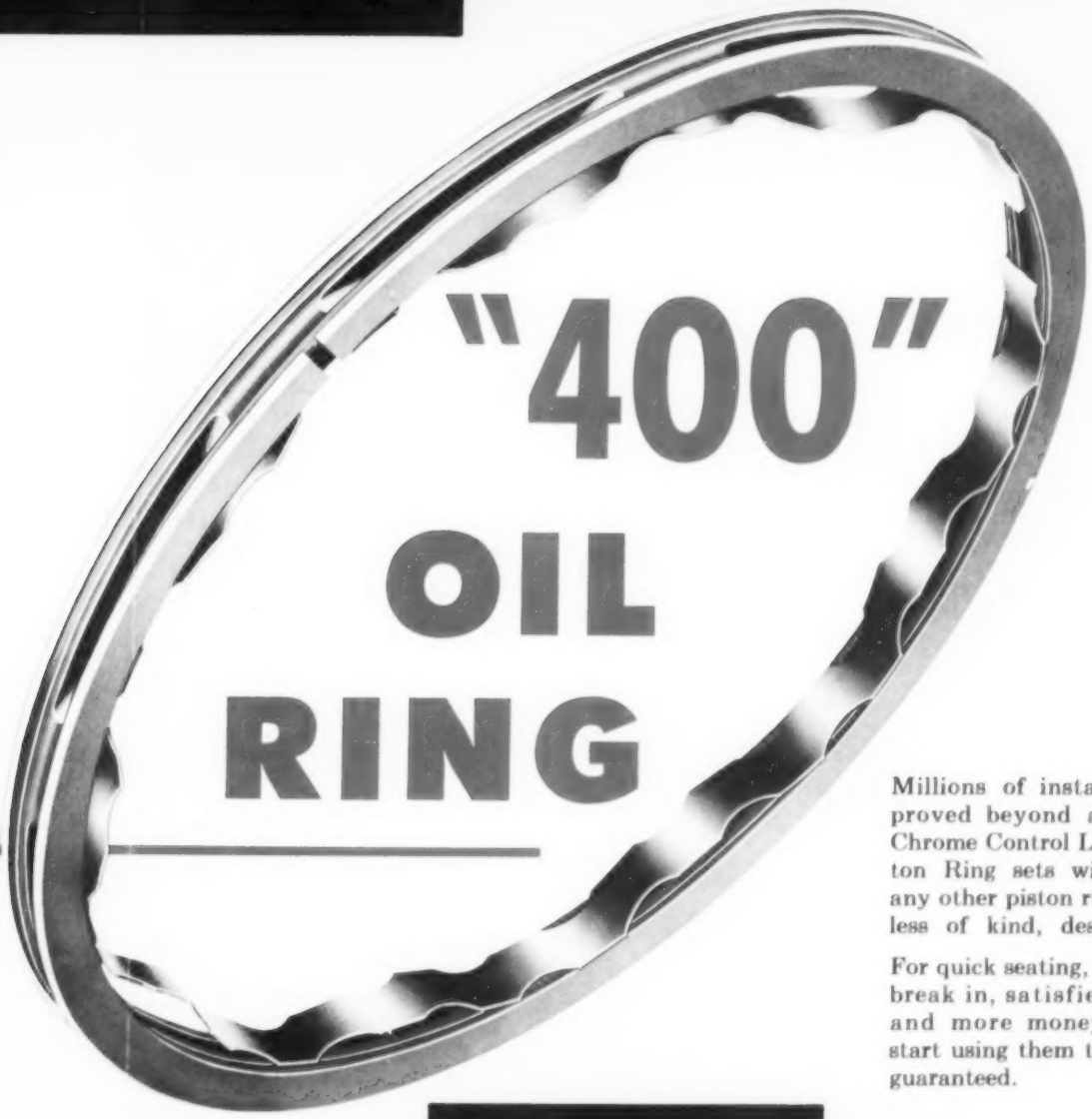
CHROME CONTROL LEAK-PROOF

PISTON RINGS

Will outperform any other piston ring set regardless of kind, design or price.

PRINTED IN U.

RINGS HAVE *CRACKED* THE OIL MILEAGE BARRIER



Millions of installations have proved beyond a doubt that Chrome Control Leak-Proof Piston Ring sets will outperform any other piston ring set regardless of kind, design or price.

For quick seating, no waiting for break in, satisfied customers and more money in the till, start using them today. They're guaranteed.

McQUAY-NORRIS MANUFACTURING CO.

ST. LOUIS . . . TORONTO

LARGEST PRODUCER OF SMALL RINGS IN THE AUTOMOTIVE INDUSTRY.

TED IN U. S. A.

AND YOU DON'T NEED X-RAY EYES TO SEE THE JOB McQUAY-NORRIS BEARINGS DO

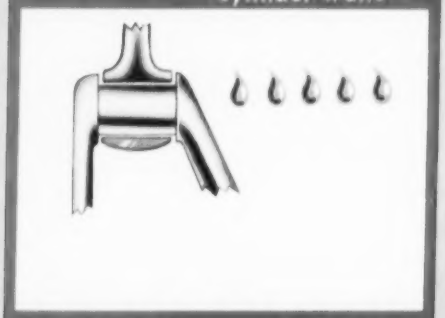
IT TAKES GOOD BEARINGS

IT TAKES REPLACEMENT BEARINGS

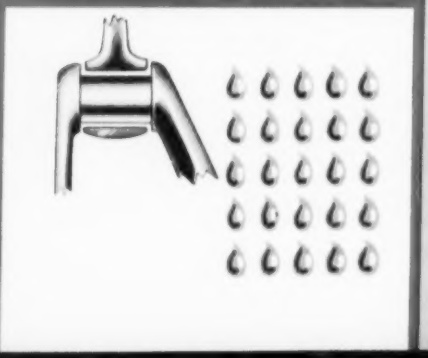
IT TAKES McQUAY-NORRIS BEARINGS

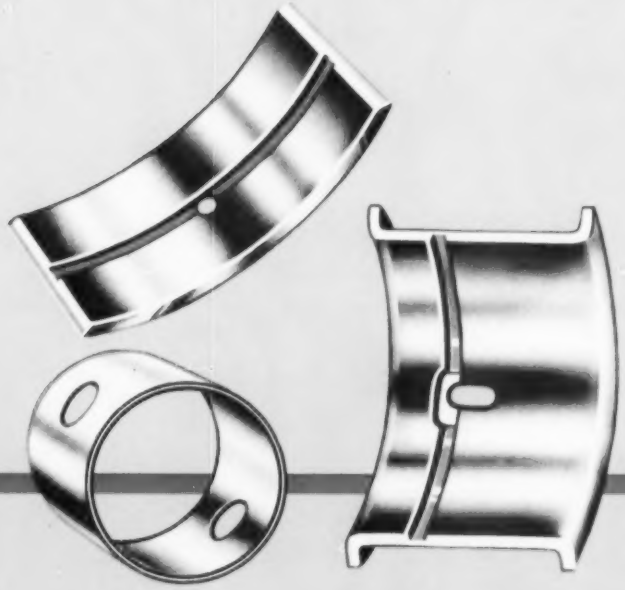
. . . . to do a good job

Twice the normal clearance = Five times amount of oil thrown onto cylinder walls



Four times the normal clearance = 25 times amount of oil thrown onto cylinder walls





McQUAY-NORRIS

COMPLETE BEARING SERVICE

Barrett Asks:

HOW MANY DRUMS DID YOU SEND OUT FOR MACHINING LAST MONTH?

This is Your Most Profitable Shop Operation

When you send Drums out to be machined—you are paying for some other shop's Drum Lathe

This PROFIT belongs to YOU!

The *Additional* Take-Home Pay belongs to YOUR MECHANICS

B-500 UP—For Universal Passenger Car and Light Truck Service Illustrated

Example:

Average Dealer Relines 5 jobs per week

4 Drums per car—20 per week

Average Customer Charge $6.00 to $8.00 Per Set

5 sets @ $6.00 = $30.00

or

5 sets @ $8.00 = $40.00

DRUM MACHINING is 92% *Gross Profit!*

Yours for as low as 10% down with 36 months to pay

Approximately—

Per day.....$ .70

Per week.... 5.00

Per month... 21.70

Also available through New Lease Sale Plan

Prove Profit Possibilities before purchase

See Your Jobber or Mail Coupon for Details

EXPERIENCE PROVES THAT SHOPS HAVING A DRUM LATHE—MACHINE 90% OF ALL DRUMS ON A RELINE JOB

There is no comparison—the Drum Dokter is the Greatest of all PROFIT MAKERS. It is the ONE piece of equipment that rings the cash register.

BARRETT EQUIPMENT CO. 21st & Cass Ave. St. Louis 6, Mo.

BARRETT EQUIPMENT CO.
21st & Cass Ave., St. Louis 6, Mo.

Please Send

- ☐ Your Representative
- ☐ Details on Lease Sale Plan
- ☐ Literature on B-500 Drum Dokters

Name

Address

City State

Signed L-7

NOW AVAILABLE WET OR DRY CHARGED

SELL PREST-O-LITE HI-LEVEL QUALITY...

PROVED BY TWO-MILLION-MILE TEST

A 2-million-mile battery test, one of the most extensive ever given car batteries, proved conclusively that Prest-O-Lite Hi-Level is second to none in its field. In this test, 100 stock batteries of this type were driven two million miles under all kinds of driving conditions, in traffic and on the highway. Inspection was made by authorized test personnel only. The result: *not one battery failed!*

Further results also proved the fact that these Hi-Level Prest-O-Lite Batteries needed water *no more than 3 times a year.* No doubt about it—you can sell with the assurance that you're giving top quality when you sell premium Prest-O-Lite Hi-Level.

. . . GET PREST-O-LITE HI-LEVEL PROFIT

PROVED BY THOUSANDS OF BATTERY DEALERS

Battery dealers everywhere know what it takes to sell batteries at a profit—good public acceptance and top quality. Prest-O-Lite Hi-Level has both! Add to that Prest-O-Lite's fair Guarantee Policy that protects you *and* yet gives your customers a fair deal. Here's the reason you stand to make 48% more profit with Prest-O-Lite Hi-Level on a typical sale.

Sale of an ordinary battery...

Selling price	**$20.50**
Dealer cost	**13.80**
Dealer profit	**6.70**

Sale of Prest-O-Lite Hi-Level

Selling price	**$27.95**
Dealer cost	**18.00**
Dealer profit	**9.95**

THAT'S 48% MORE PROFIT!

Get set for those demand sales by stocking dependable Prest-O-Lite Hi-Level Dry-Charged Batteries. Fresh when you buy them . . . fresh when you sell them. See your Prest-O-Lite Battery wholesaler.

Prest-O-lite
hi-level

NEEDS WATER ONLY 3 TIMES A YEAR*

Prest-O-Lite Battery Company, Inc.
Toledo 1, Ohio

*IN NORMAL CAR USE

This Sign Means Business!

fuel pump

fuel filter

carbureter

Powerful advertisements in SATURDAY EVENING POST, HOLIDAY and other important national magazines tell your customers—*the man behind this sign can step up their cars' performance.*

Take advantage of this pre-selling job. Be the man behind the Carter Service Sign. Be the man to see for complete fuel system service. There's profit in this business!

Get all the facts from your Carter supplier . . . today!

CARTER CARBURETOR
DIVISION OF ACF INDUSTRIES
INCORPORATED
ST. LOUIS 7, MISSOURI

What makes customers come back for more?

They'll all come back if you give 'em the best. When it's a bearing job . . . *just tell 'em it's TIMKEN®!*

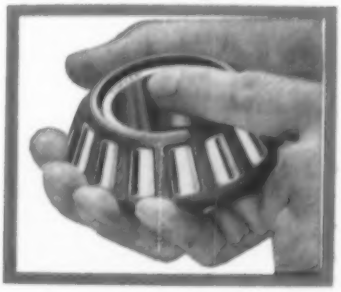
Free gifts and door prizes might bring 'em in. But what your customer really wants is *service*. So, when you're replacing tapered roller bearings, make sure your customer gets *Timken*® bearings, a name he knows means quality and good service. To keep 'em coming back, point to that trade-mark "Timken"! The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable: "TIMROSCO".

TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS

NOT JUST A BALL ○ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL AND THRUST LOADS OR ANY COMBINATION



SIOUX SIOUX SIOUX

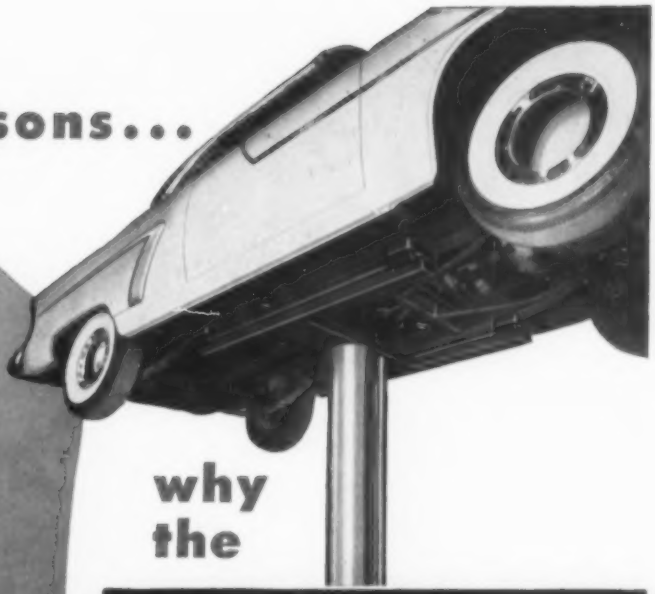
WISE BIRDS BUY THE TOOL, NOT THE DEAL—In these days of special price deals, special trade-in deals, and special credit deals, it may seem dull to speak of the wisdom of buying quality tools that last longer. • Are they all bargain hunters? Of course, they are! Do they know what a bargain is? You bet they do! A bargain is the finest, longest lasting piece of precision equipment you can lay your hands on. Price *is* important, but only in relation to quality. If this were not true, there wouldn't be more SIOUX Valve Face Grinding Machines in use than all others combined. If this were not true, the SIOUX reputation for long lasting quality electric tools wouldn't be worth so much. • In the fields we serve, it's gratifying to see that what you have to sell is still more important than what you will do to sell it.

ALBERTSON & CO., INC.

SIOUX CITY, IOWA, U.S.A.

ELECTRIC DRILLS • SANDERS • GRINDERS • IMPACT WRENCHES • POLISHERS • PORTABLE SAWS • FLEXIBLE SHAFTS • VALVE FACE GRINDING MACHINES • ABRASIVE DISCS

8 reasons... why the Curtis all-purpose single post FRAME LIFT



1

COSTS LESS TO BUY—LESS TO INSTALL

...than any type of two-post lift.

2

FASTER, EASIER UNDER-CAR SERVICE

...up it goes swiftly, smoothly on its highly polished plunger—up to 67" if needed.

3

MAXIMUM ACCESSIBILITY

...everything you need to reach is at your finger tips—for inspection—for adjustment—for greasing—for removal and replacement.

4

RELAXES SPRING SUSPENSIONS

Frees bearings—Permits full grease penetration at lower pressures—less time required per fitting, therefore quicker lubrication jobs.

5

CLEAR FLOOR SURFACE

Permitting unrestricted use of servicing equipment. No recess in floor to catch dirt.

6

EASY SPOTTING OF CAR

Two-position wheel dishes permit proper positioning of both long and short wheelbase cars, permitting easy "spotting" and safe pick-up.

7

WHEELS HANG FREE

Facilitates tire changes and rotation, re-packing wheel bearings, brake work, installing and removing chains.

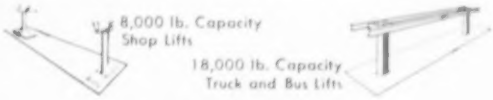
8

102 YEARS OF ENGINEERING RESEARCH

...that's what it amounts to—Because Curtis has been engaged in successful manufacturing experience since 1854.

puts extra money in your pocket

Anything you do to speed up shop work increases your volume—therefore your profits. This all-purpose single post Frame Lift does just that—helps speed up shop work through greater accessibility. See your Curtis jobber or write for bulletin BGS-6.



Remember you can COUNT on... OUR 102nd YEAR

Curtis

MANUFACTURING CO • PNEUMATIC DIV. • 1938 KIENLEN • ST. LOUIS, 20 CM-2

WHY

- *Do you take casing off rim . . .*
- *Take tube out of casing . . .*
- *Patch tube . . .*
- *Put tube back in casing . . .*
- *Put casing back on rim . . .*

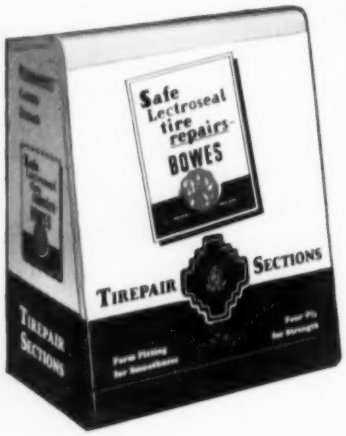
Why not repair the Casing too?

Why put all that time against small fee you get for patching tube. Easy to sell customer idea of repairing hole or break in casing when you tell him costs little and will add lots of miles. Do customer an actual favor . . . make yourself a real profit . . . repair the casing too.

It's quick, easy, profitable with

BOWES TIREPAIR SECTIONS

SEAL FAST



TIREPAIR Sections are light in weight, extremely flexible. Rubber-impregnated 4 ply rayon cord fabric strips in criss-cross pattern places greatest strength right over break. Tapers to feather edge all around. Handy cabinet provides stock of assorted sections, space for solvent and cleaner, Lectroseal B-33 rubber repair stock, valves and cores.

BOWES "SEAL FAST" CORPORATION, INDIANAPOLIS 7, INDIANA
HAMILTON, ONTARIO, CANADA • LONDON, ENGLAND
BOWES PACIFIC CORP., RIVERSIDE, CALIFORNIA

. . . Griffin Leads In Safety Lighting

● Griffin gives you the answer to all safety lighting needs. Whether it's stop lamps, turn signals, warning signals, clearance and marker lamps, mirrors—you name it, Griffin makes it —better!

Pick up a Griffin lamp—look at it. You'll find it's heavier, sturdier, tougher, able to stand up under years of rugged fleet wear. Every Griffin lamp is fleet engineered for longer life, trouble-free service—and to keep maintenance and replacement costs to a minimum.

See your Griffin jobber now. You'll find it pays to concentrate on Griffin—the complete line engineered for fleet use, alone.

THE GRIFFIN LAMP COMPANY · HAMILTON, OHIO · SHELBY, MISS.

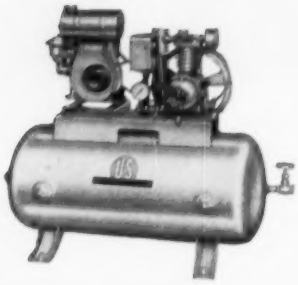
WAREHOUSES: Boston, Pittsburgh, Los Angeles, San Francisco, Seattle

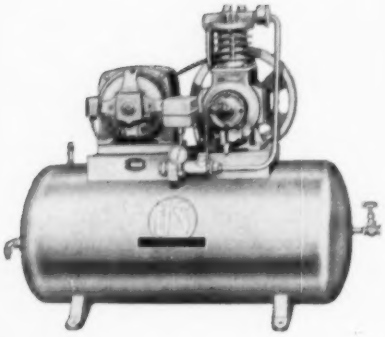
Model No. 200 Whopper stop lamp, 7¼" diam. 4" depth. Finished in black enamel. Stainless steel door. Lens color red or amber.

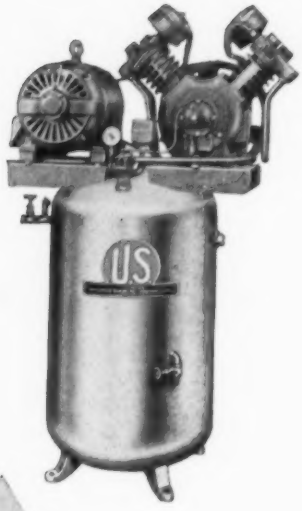
Model No. 552 New class A, Type 1, double faced turn signal. Only 2" deep—needs no reflector. Throws an amber signal forward and red signal to the rear with one bulb and a single set of wires.

Model No. 361 Portable emergency warning blinker. A high intensity warning blinker with 360° lens. Large rubber suction cups for mounting, securely, on any flat smooth surface. Plugs into cigarette lighter. Also available with battery clamps.

GRIFFIN
AUTOMOTIVE SAFETY LIGHTING







U.S.

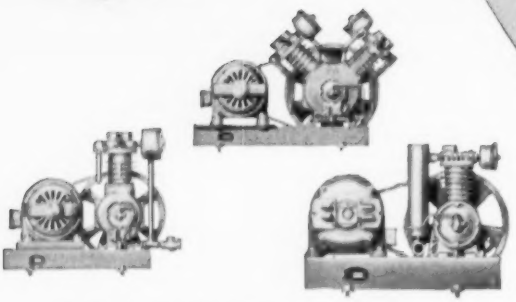
½ to 10 horsepower

AIR COMPRESSORS

• exactly the right compressor for your particular requirements

New!

10 HORSEPOWER
Model
CA 11023

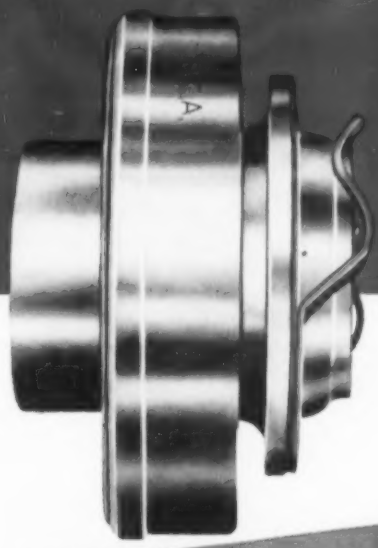


BASE MOUNTED UNITS
Add air capacity to existing tanks or use a multiple installation with one tank to insure positive air supply.

UNITED STATES AIR COMPRESSOR CO.
5300 Harvard Avenue • Cleveland 5, Ohio

BCA CLUTCH BEARINGS

give up to 3 TIMES "expected" life!



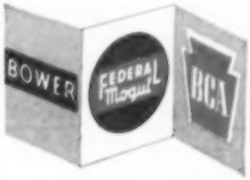
Tests prove it!

Automotive engineers expect clutch bearings to be good for 70,000 to 80,000 declutchings. Tests prove that BCA clutch bearings are good for more than 200,000 declutchings at speeds corresponding to 50 to 60 miles per hour!

Leading fleet superintendents specify BCA bearings. There's good reason why. BCA bearings stand up longer in the clutch!

- BCA clutch bearings are specifically designed for automotive replacement service. They are made to original equipment specifications.
- Precision high-carbon chrome balls, precision-ground carburized steel washers, and unique carrier assembly form a perfectly balanced design that assures correct running and smoother operation at all speeds.
- There's no need for relubrication. The bearing is filled with a highly refined lubricant that remains stable at high temperatures. Ample lubricant space provides a more than adequate reservoir. Lubricant is accurately metered to each bearing.
- Special bronze ferrule minimizes friction and wear on the carrier nose.

Next time, put in BCA "Triple-Life" Clutch Bearings. It pays.



Federal-Mogul Service
(Division of Federal-Mogul-Bower Bearings, Inc.)
DETROIT 13, MICHIGAN

Get the bearings you need WHEN you need them.
Call your Federal-Mogul Service jobber.

DU PONT

SELLING SLANTS

FROM DU PONT · MAKERS OF "ZERONE" AND "ZEREX" ANTI-FREEZE

FRANK LEAHY SIGNS UP for 10 weeks of football forecasting on television this fall for "Zerone" and "Zerex" anti-freezes. Last year more than 30 million fans watched this famous coach on Du Pont's exciting 15-minute show, and this year will surely be joined by millions more. This top-rated program highlights Leahy's predictions with action-packed film shots of the major teams —and Leahy himself will be selling your customers on "Zerone" and "Zerex". So, order yours early and get ready for a big season.

Order Anti-Freeze in July? Yes!

Last year, when dropping temperatures brought an extra heavy demand for "Zerone" and "Zerex," a few dealers suddenly ran out of these Du Pont anti-freezes just because they didn't order enough early enough. Result: lost profits! This won't happen to you if you order *now* and reserve your full supply of *both* "Zerone" and "Zerex" for delivery well before the first freeze. Then you're sure to have enough, in the container sizes you prefer, to take care of any situation. Result: more profits!

You've got nothing to lose when you order early, but you take the chance of missing out on substantial profits if you delay. Remember, you rarely get a second chance to pick up anti-freeze business you lose. So don't risk running short by depending on last-minute deliveries, which often result in the loss of profitable business. Order your "Zerone" and "Zerex" now and work out a delivery schedule with your distributor that is right for your particular needs.

*"Sell the sizzle . . . not the steak"**

Hidden in every product or service is a convincing benefit that, when properly explained, will make your customer buy. Try this one a few weeks *before* the weather gets cold in your area: *"Let me protect your car with a Du Pont anti-freeze now, Mr. Jones. I can give your car's cooling system more personal attention now than you'll get when that first-freeze rush starts."*

*The selling tip above is just one of many that are shown in a sound-slide color film titled "How to Increase Your Sales with Sizzle Selling," featuring Elmer Wheeler, America's No. 1 salesman. Du Pont made this film for just one reason—to make your job easier in selling anti-freeze and related products. Have your local dealer association contact Du Pont for a free print of this 15-minute film to be shown at dealer meetings.

Who would you pick for Miss Anti-Freeze '56?

LORRAINE ROGERS

MOLLIE ANN

MARGIE McNALLY

BETTY OAKES

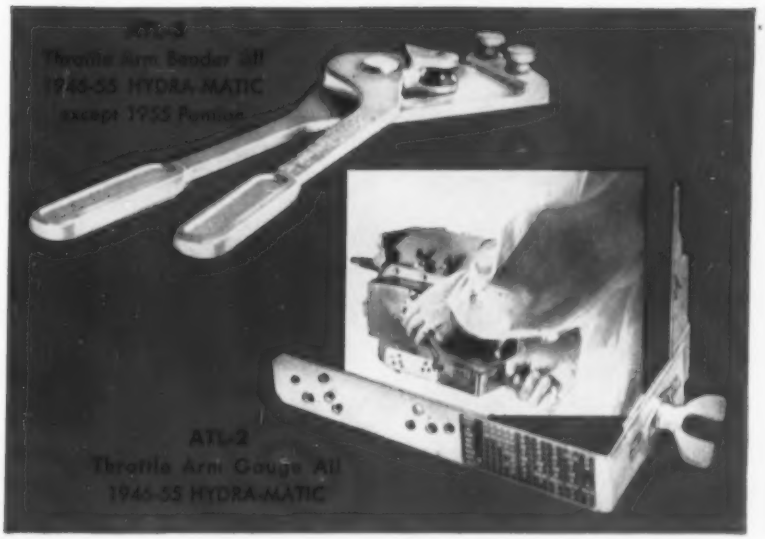
The winner of the 1956 Miss Anti-Freeze title will be featured this fall in the biggest Anti-Freeze Week promotion ever. Du Pont will be backing this national anti-freeze promotion for the fourth straight year to bring motorists to you for their winterizing needs—before the first-freeze rush! Be sure *you* tie in with Anti-Freeze Week this fall—it can mean extra profits for you. Ask your supplier for details or write to Du Pont. Look for the winner next month and see if your selection is the one that got the most votes.

WRITE TO:
"SELLING SLANTS"
E. I. DU PONT DE NEMOURS & CO.
"Zerone"-"Zerex" Section
Nemours 2420-D-4, Wilmington 98, Del.

DU PONT
REG. U. S. PAT. OFF.

ZERONE® and ZEREX®
ANTI-FREEZE
BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

THESE *New* HYDRA-MATIC TOOLS OPEN UP *profitable* NEW REPAIR SERVICES FOR *You!*



DRAW PROFITABLE NEW BUSINESS
with these Eye-Catching SERVICE KIT BOARDS

HYDRA-MATIC Service Kit Board

Automatic Transmission Adjustment Tool Board

You *make* more — and *save* more — with these new, multi-purpose Tools by New Britain. The Universal Throttle Arm Gauge and Universal Throttle Arm Bender put you profits ahead in the big, new field of Automatic Transmission Service . . . require only a minimum Tool investment. Packaged complete with illustrated instructions, these top-quality mechanic's Tools are engineered to save time and trouble for you — give you the big advantages of easy use, accuracy and long service life. Make your shop *Headquarters for HYDRA-MATIC* Transmission Service . . . ask your Jobber for these money-making new Tools today!

Other New Tools for AUTOMATIC TRANSMISSIONS

AMS-1 Open-Type Snap Ring Remover

ARS-1 Rear Servo Spring Compressor

AOD-1 Oil Delivery Sleeve Ring Compressor

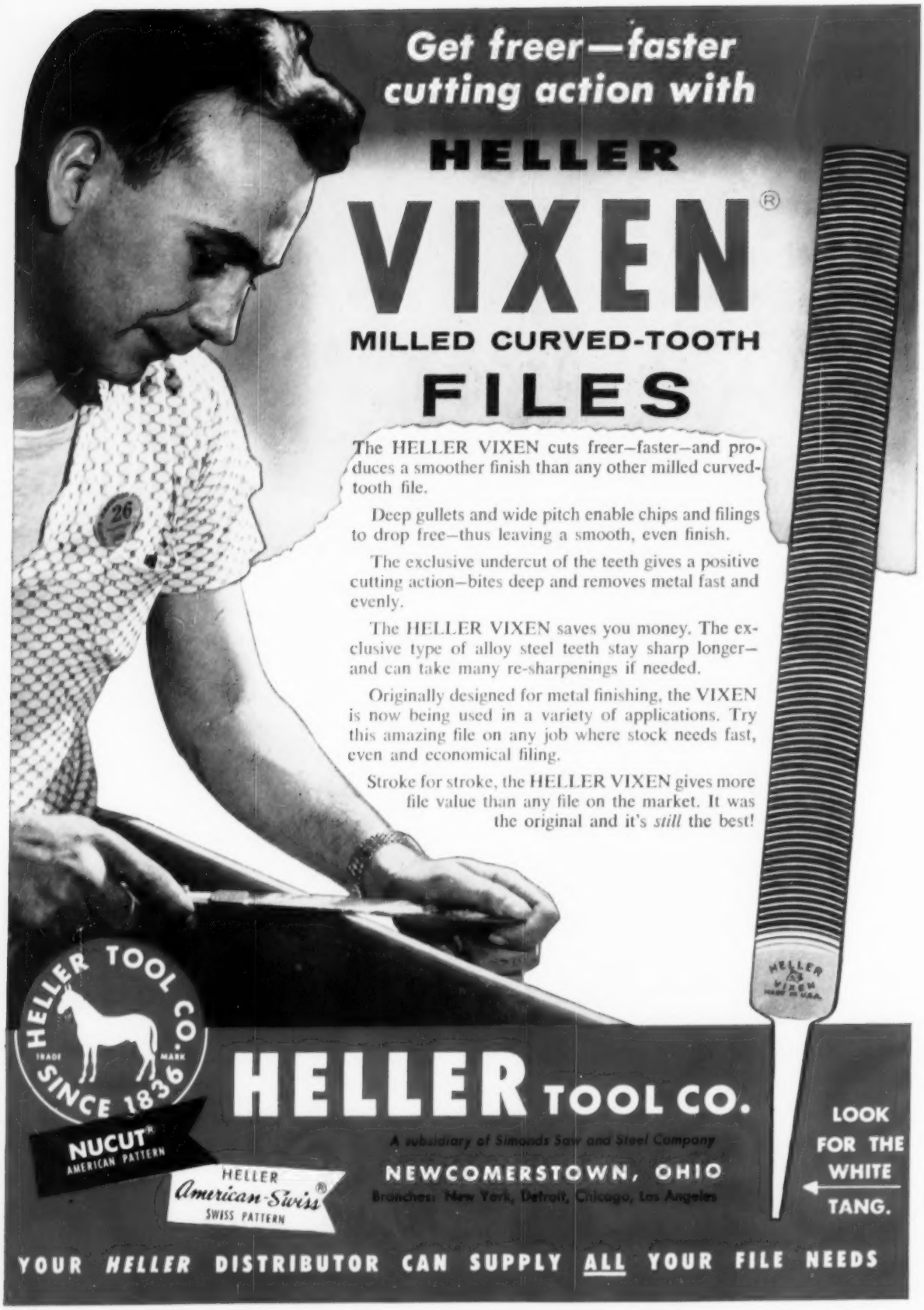
AME-1 Mainshaft End Play Checking Tool

ASP-1 Seal Puller

N.A.P.A. Assurance of Quality

New Britain HAND TOOLS

THE NEW BRITAIN MACHINE CO. • NEW BRITAIN, CONN.


Get freer—faster cutting action with
HELLER
VIXEN®
MILLED CURVED-TOOTH
FILES
The HELLER VIXEN cuts freer—faster—and produces a smoother finish than any other milled curved-tooth file.
Deep gullets and wide pitch enable chips and filings to drop free—thus leaving a smooth, even finish.
The exclusive undercut of the teeth gives a positive cutting action—bites deep and removes metal fast and evenly.
The HELLER VIXEN saves you money. The exclusive type of alloy steel teeth stay sharp longer—and can take many re-sharpenings if needed.
Originally designed for metal finishing, the VIXEN is now being used in a variety of applications. Try this amazing file on any job where stock needs fast, even and economical filing.
Stroke for stroke, the HELLER VIXEN gives more file value than any file on the market. It was the original and it's *still* the best!
HELLER TOOL CO. SINCE 1836 TRADE MARK
NUCUT® AMERICAN PATTERN
HELLER American-Swiss® SWISS PATTERN
HELLER TOOL CO.
A subsidiary of Simonds Saw and Steel Company
NEWCOMERSTOWN, OHIO
Branches: New York, Detroit, Chicago, Los Angeles
LOOK FOR THE WHITE TANG.
YOUR HELLER DISTRIBUTOR CAN SUPPLY ALL YOUR FILE NEEDS

Looking for a short-cut to brake service profits?

You can save ½ to 1½ hours per job by using

EXCHANGE BRAKE SHOE SETS relined with

Wagner® CoMaX BRAKE LINING

either "bonded-on" or "riveted-on"

Increase profits on brake reline jobs and speed customer service by using Wagner Exchange Shoe Sets. They eliminate dead inventory... save you the tough, time-consuming job of delining, cleaning and relining... reduce extra payroll expenses during rush periods.

Wagner Exchange Shoes are reconditioned in mass quantities according to highest factory standards. All shoes are lined with Wagner CoMaX Brake Lining to assure safer, smoother stops... more miles between relines... fewer brake adjustments. Sets are available for all popular passenger cars and some light trucks with both standard and oversize lining thicknesses, either "bonded-on" or "riveted-on."

You can get Wagner Exchange Shoe Sets as well as Wagner Lockheed Hydraulic Brake Parts and Fluid from one convenient, reliable source—your nearest Wagner Jobber. See him today!

YOU CAN DEPEND UPON WAGNER QUALITY BECAUSE WAGNER PRODUCTS ARE USED AS ORIGINAL EQUIPMENT BY MANUFACTURERS OF CARS, TRUCKS, BUSES, AND TRAILERS

BOOST YOUR PROFITS BY BECOMING A WAGNER FRANCHISED DEALER

GET IT FROM YOUR JOBBER

Est. 1891 **Wagner®** ...the best known name in brake service

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID... CoMaX BRAKE LINING... WaRol... AIR HORNS
AIR BRAKES... TACHOGRAPHS... ELECTRIC MOTORS... TRANSFORMERS... INDUSTRIAL CRANE BRIDGE BRAKES

Wagner Electric Corporation
6362 PLYMOUTH AVE., ST. LOUIS 14, MO., U.S.A.
(Branches in principal cities in U.S. and in Canada)

Please mail me a copy of AU-607 explaining the details of your Franchised Dealer Program.

Name _____
Firm _____
Address _____
City and State _____

An Open Letter To

Mr. Mike Kolzyk, Service Station Operator

Mr. Mike Kolzyk
[redacted] Service
[redacted].
Brooklyn 12, N.Y.

Dear Mike:

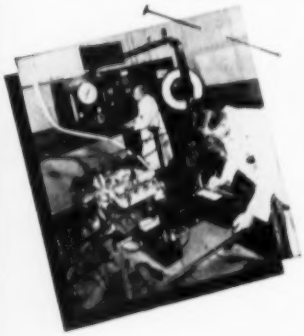
First off, you deserve credit for speaking your piece! If you think something's either good or bad, you're the kind of guy who comes right out and says so.

But we have a confession to make, Mike. A few days ago a "customer" asked you some questions about the new spark plug with Power Tip -- made by Auto-Lite. Well, that "customer" was really one of our researchers, sent out to find out how much service station men know about the new Power Tip. Here's his report on his talk with you:

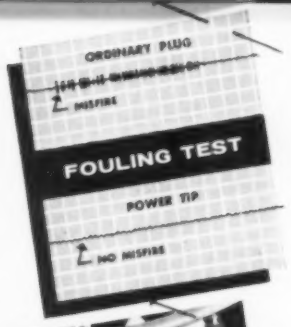
> "I mentioned to Mr. Kolzyk that I understood the Power Tip was supposed to run hotter at low speeds to prevent fouling and colder at high speeds to check pre-ignition. Mr. Kolzyk's comment was, 'That's a lot of baloney!' He added that no plugs performed like that . . . that I'd have to buy either hot plugs or cold plugs to suit my particular type of driving."

Mike, we have news for you! Mind you, we don't criticize you for questioning whether any spark plug could be made to do a job at both high and low speeds. Why, our own engineers spent many months (and a potful of money) before they were convinced that Power Tip was as good as it really is!

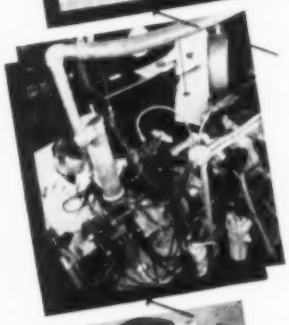
But because you're the kind of guy who wants to be right about what you tell your customers, we think you'll be interested in what the engineers have found out about this new Auto-Lite Resistor Spark Plug with Power Tip:



Here's their POWER TEST. A late model V-8 engine is run at wide throttle with conventional spark plugs, then with Auto-Lite Resistor Spark Plugs with Power Tip. Standard carburetion and ignition components are used with the manufacturers' recommended timing. Result: Power Tip actually shows better power output and performance at all speeds than new conventional plugs.



Now the FOULING TEST. These recordings are from test equipment set up to show how spark plug fouling causes misfiring. Both conventional plugs and Power Tip are run through same fouling test. The top chart shows serious misfiring recorded during test with ordinary plugs. In an identical test, (lower chart) new Power Tip continued to operate perfectly with no misfiring. That's low-speed performance, Mike.



Then they test for PRE-IGNITION. On a standard test engine the power output is increased until the insulator tip of each spark plug being tested becomes hot enough to ignite fuel mixture before the spark is fired, (pre-ignition). Results of this test prove Power Tip has greater factor of safety against pre-ignition than conventional plug with shorter insulator tip. Mike, that's high-speed performance.

And finally comes the "acid test" of Power Tip performance, Mike, actual road tests in 17 makes of American V-8 cars. They ran Power Tip for long hours and thousands of miles in heavy stop-and-go traffic and at turnpike speed limits, with some cars rolling up as many as 28,000 miles. In these test cars, new Power Tip completely confirmed every laboratory test! Mike, that proves Power Tip gives top performance at all speeds.

So now you see, Mike, Power Tip performance isn't "a lot of baloney." It's a tested and proved fact that can mean a lot to you through the satisfaction your customers will get when you install these new Auto-Lite Resistor Spark Plugs with Power Tip in their cars.

We have a hunch you'll do just that, too. Because when you find something that's good for your customers -- as we said -- you're the kind of guy that comes right out and tells them -- and sells them!

Good luck, Mike! Our research man helped you a little by his purchase of gas and oil, but you helped us a lot by reminding us that a lot of "Mikes" need to know the facts about Power Tip. Anything but the facts is -- as you put it -- "a lot of baloney."

Sincerely,

M. H. Smith

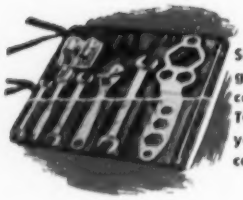
M. H. Smith,
Gen'l Sales Manager, Replacement Sales

AUTO-LITE

RESISTOR SPARK PLUG WITH

POWER TIP

THE ELECTRIC AUTO-LITE COMPANY • TOLEDO 1, OHIO



TOOL KIT

Service even the hard-to-get-at filters on today's cars. This Filter Service TOOL KIT is available to you at a fraction of its cost.

FREE MANUAL

Contains illustrated instructions for servicing filters on all cars. Ask your Jobber's salesman for your FREE copy.

Your customers feel it quick—in their pocketbooks—when their cars are pinned down on the road or in the shop by sticky valves, scored cylinders and worn bearings. The common cause of these troubles is dirty motor oil full of grit, dirt and gummy sludge. The thrifty cure . . . prevention . . . and your assurance of continued customer satisfaction, is WIX Engineered Filtration.

WIX provides a *complete* Line of top-quality, HEVI-DUTY Oil Filter Cartridges for every car that drives into your Shop . . . prescription-type Filtrants including Premium WIX-KNIT and Pleated POROSITE for full-flow systems, Resilient Density WIXITE for by-pass systems . . . PLUS a complete Sales and Merchandising Program backed by consistent, National Consumer Advertising to boost your Cartridge sales.

NATIONAL ADVERTISING

Leading national consumer publications, including LIFE and SATURDAY EVENING POST, tell your customers how they save money with WIX—give you powerful sales support.

Take advantage of this money-making opportunity—write for details today!

wix®

OIL FILTERS / CARTRIDGES

WIX CORPORATION • GASTONIA • N. C.

In Canada: Wix Accessories Corp. Ltd., Toronto

50% more power

THOR MODEL 1500 ORBITAL SPEEDSANDER

This heavy duty orbital-motion electric Thor SpeedSander has wide use in refinishing work, for sanding, buffing, rubbing and polishing. Has 4½" by 9" sanding area; uses sheet or wet abrasives. Ball-bearing construction. Light weight for easy handling.

Sanding metal demands this extra power!

THOR PORTABLE ELECTRIC SANDERS

AVAILABLE ON AN EASY PAYMENT PLAN

SANDING metal efficiently is a job for Thor Electric Sanders, not just ordinary sanders. The difference is in the power. Thor builds EXTRA POWER into the Thor armature, and triple-insulates that armature for long, rugged use. Then Thor delivers that EXTRA POWER through a transmission system of high quality tool steels and gearing, fully mounted on ball bearings.

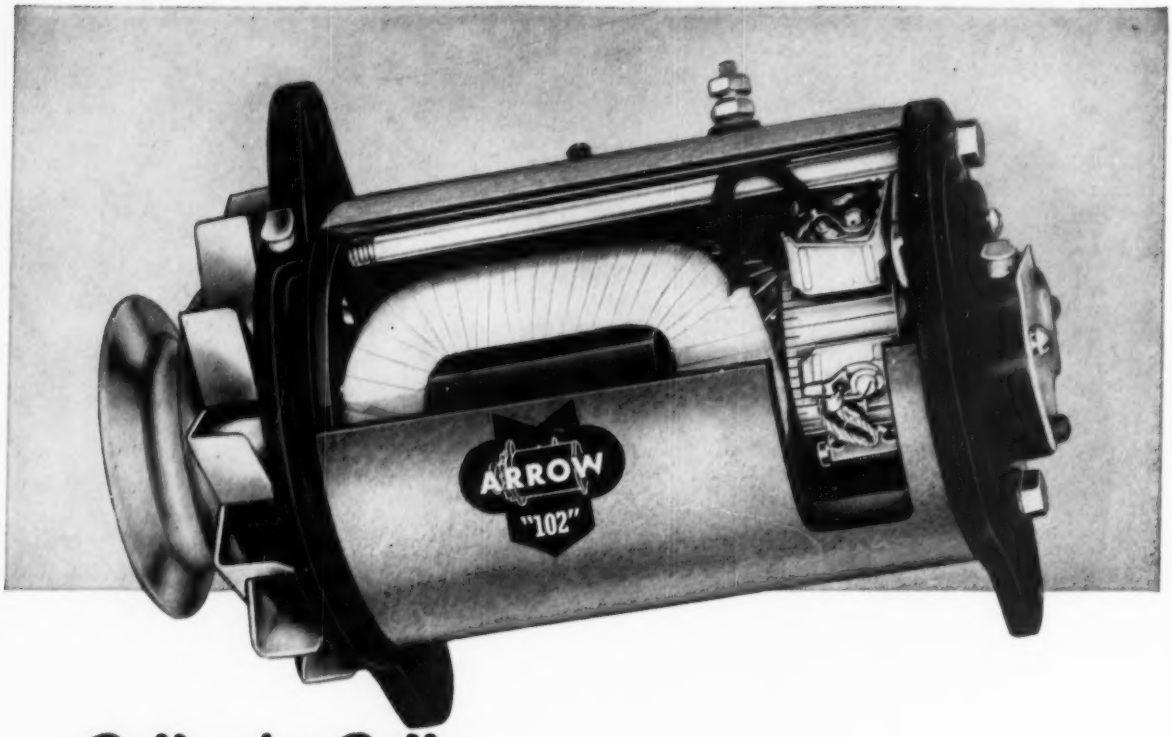
Other important Thor advantages include light weight, compact design, and removable side handle for right or left hand use. Thor's handy spindle lock permits fast disc changes. The exclusive Thor rubber tool rest protects tool and car finish.

Ask your Thor jobber for a demonstration—there's a Thor Electric Sander in every disc size and capacity you require. Ask him about Thor disc trimmers, discs, backing pads and other accessories. Thor Power Tool Company, Aurora, Ill.

Thor PORTABLE POWER TOOLS

THOR POWER TOOL COMPANY

Atlanta • Birmingham • Boston • Buffalo • Chicago • Cincinnati • Cleveland • Denver Detroit • Houston • Los Angeles • Milwaukee • Newark • Long Island City, N.Y. • Philadelphia Pittsburgh • St. Louis • San Francisco • Seattle • Toronto, Canada • Export Division, New York City



Dollar for Dollar

ARROW GIVES YOU MORE...

THE FINEST REBUILT GENERATORS

- For every passenger car and light truck
- More carefully made than the parts they replace
- Tested and proved on more than 2,000,000 cars

MORE SALES AND EXTRA PROFITS

- Arrow merchandising helps you make more sales of Arrow products and other related parts
- Arrow Stocking Dealers make *extra* profits

. . . and your profit is protected by a one-year guarantee

This Booklet tells how YOU can get MORE Sales MORE Profits

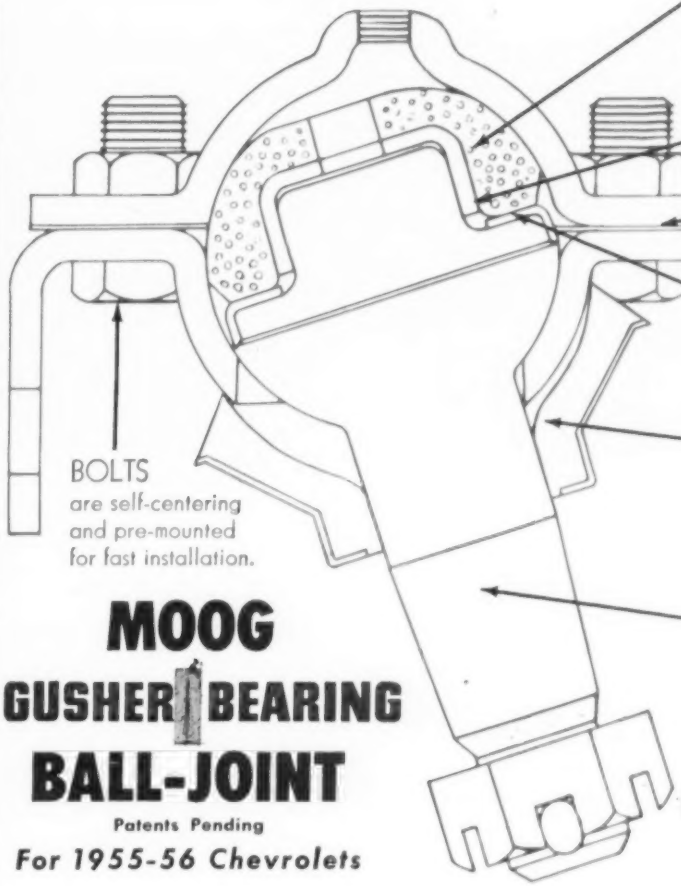
Send for it!

ARROW ARMATURES CO.
BOSTON, MASS. & SPARTANBURG, S. C.

Popular 7-Generator Stock covers 85% of all replacement sales.

Ask your Arrow Jobber how you can make EXTRA PROFITS as an Arrow Stocking Dealer. Write for the name of the nearest Arrow Jobber.

AMAZING new improvement in ball-joint design ...a Moog exclusive in the replacement field!



K-670 Moog Lower Ball-Joint Unit

MOOG GUSHER BEARING BALL-JOINT

Patents Pending

For 1955-56 Chevrolets

Improved design and reduced clearances in the new Moog Upper and Lower Ball-Joint Units eliminate the major cause of noisy, erratic steering and unstable front-end suspension: *excessive stud end-play.*

And Moog Ball-Joints last far longer, too, because *Gusher-Bearings* (as in famous Moog Tie Rod Ends) "breathe" oil at all wear surfaces to prevent dry metal-to-metal contact.

See your Moog Jobber for these newest Moog parts designed and built to do a better job than the parts they replace. And ask to see the amazing *Gusher-Bearing* Demonstration, too.

TRY A SET OF MOOG BALL-JOINTS AND NOTICE . . .

- Improved "feel of the wheel". . . . immediate wheel return (no break-in period)!
- Positive front-end adjustment . . . simplified wheel balancing!
- More stable front-end suspension . . . less noise and vibration!
- Easy installation . . . with pre-mounted, self-centering bolts!

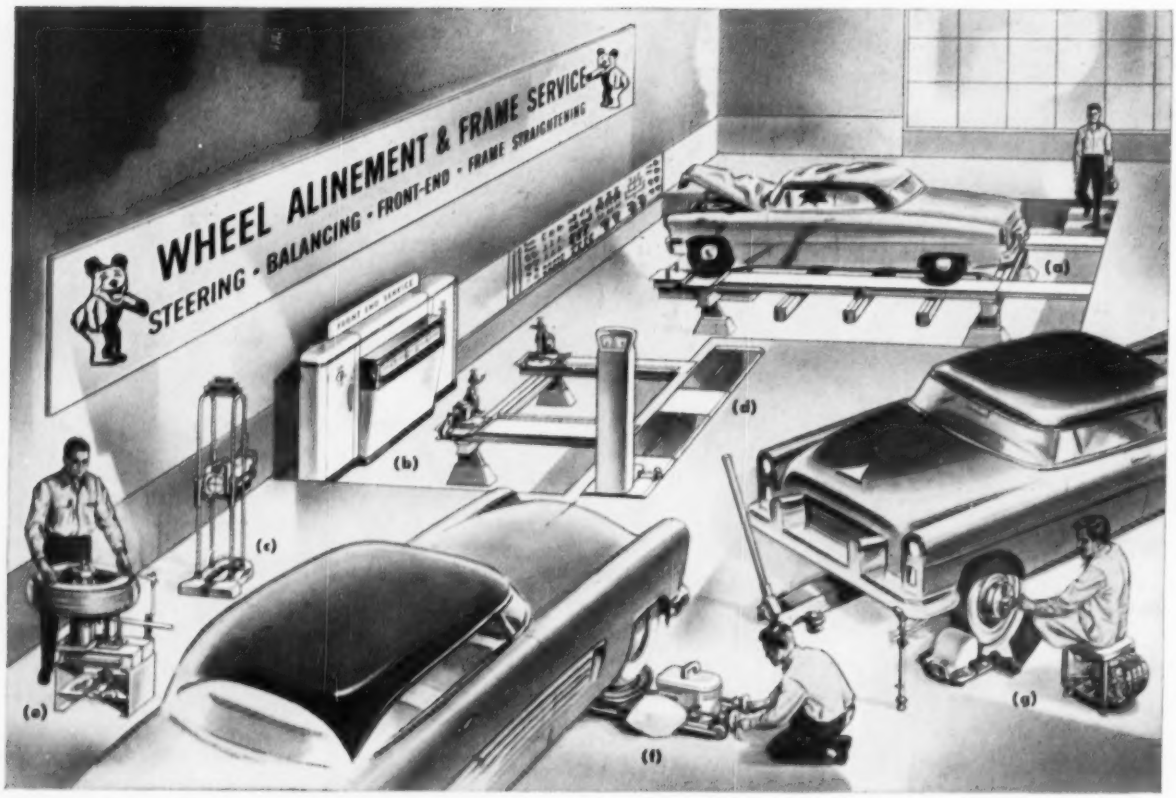
MOOG
A GREAT NAME IN AUTOMOTIVE MAINTENANCE

MOOG INDUSTRIES, INC.
ST. LOUIS 14, MO.

men in tune with the times are getting into

Specialized Bear Service

Just as America's changing shopping habits are being met by super markets, shopping centers and other new mass-volume outlets, so the *changing service needs* of the motorist are being met by shops offering *Specialized Service*. Alert automotive men, in tune with the times, realize that now is the time to get in on the ground floor of this tremendous opportunity. Thousands are already making *big money* with Specialized Bear Service.



why Specialized Service?

Ever-more sensitive suspension systems, smaller wheels, more extensive use of tubeless tires, more miles of highways and new, smoother roads . . . all are evidence that a NEW APPROACH to *getting more service work* is in order.

Men in tune with the times look to Specialized Service for this new approach. They know that a well-organized, properly equipped layout such as pictured here, cuts handling time per job; does the job *right*, faster; creates happy customers; and helps make more sales at one time.

Specialized Bear Service is adaptable to any type of operation. It can be operated as an individual business, with its own name and location. It can be a department within a complete automotive service organization or car dealership. Or, it may be operated as an integral part of a small garage or repair shop.

Start with the entire Specialized Service Outfit, or buy one or two pieces now, and then expand under Bear's Add-A-Unit Plan—the main thing is to get started NOW! Your friendly Bear Jobber will be glad to help you—ask him, too, about his convenient Pay-Out-Of-Profits Plan! Send for latest Bear Catalog. Bear Mfg. Co., Dept. S-1, Rock Island, Illinois.

Here's the kind of equipment you'll need to offer BIG PROFIT Specialized Bear Service:

(a) 97-12 Frame Service with exclusive *4-way action*, straightens all 4 major bends at one time . . . makes body work easier, too! No need to remove chassis! Extra tools for front axle, rear housing work can be added.

(b) 6831-89 Front-End Service with Telaliner* is the *finest* money can buy. It's the finest for Accuracy and Sales Appeal. Saves up to 35% of the operator's time.

(c) 560 Headlight Tester will do 25 feet of headlight testing in 15 inches! Unique photo-electric cell shows exact center of beam and output. Entire test takes about one minute!

(d) 250 "Drive-Over" Wheel Alinement Tester is your springboard to big alinement profits—it sells the job! Gives driver a first-hand look at his misalinement troubles. Guarantees an accurate toe setting according to actual weight load.

(e) 322 Wheel Truer straightens average wobbly wheel without removing tire! Especially profitable with new tubeless tires which make a true wheel absolutely necessary. Handles all popular wheels.

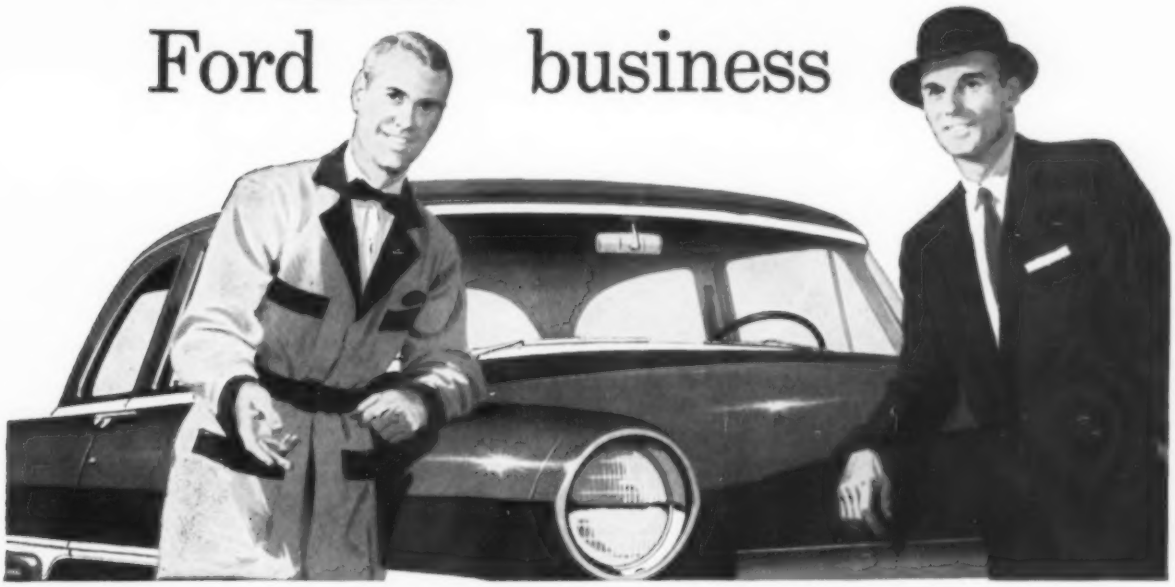
(f) 740 On-A-Car* Tire Truer provides much needed, in-demand service. Trues both car and small truck tires with minimum rubber-removal due to exclusive tilting cutter.

(g) 365 On-A-Car* Balancer works easily and accurately on hoist or floor. Amazing "Jiggler" proves balance to customers. New "Speedi" Adapters for *fastest* accurate centering. Only two knobs to find location and amount of unbalance!

*Reg. T. M.

BEAR®
SPECIALIZED SERVICE EQUIPMENT

They show the way to more Ford business



Genuine Ford Condensers | Genuine Ford Distributor Points | Genuine Ford Spark Plugs | Genuine Ford Oil Filters | Genuine Ford Distributor Rotors | Genuine Ford Starter Brushes | Genuine Ford Generator Brushes

Genuine Ford Parts—in handsome new "show-window" packages—show at a glance that you're set up for Fords!

• With these new picture-window packages for Genuine Ford Parts, it's easy for Ford owners to see you've got "the real McCoy." And Ford owners watch for these distinctive packages, too, because they feel that the man who carries the right parts for Fords does the right service job for Fords.

So put these handsome display packages on your shelves and racks. Watch the Fords come in!

GET THIS SIGN . . .

Display a Genuine Ford Parts oval and bring in more Ford business. Ford owners watch for it. Mail the coupon for the full story.

GENUINE Ford PARTS

PARTS AND SERVICE SALES DEPARTMENT

Ford Division, Ford Motor Company, Box 658, Dearborn, Mich.

Please send complete information telling me how independent garages can get a Genuine Ford Parts sign. I'd like to cash in on this, too!

FIRM NAME _____

INDIVIDUAL'S NAME _____

ADDRESS _____

CITY _____ STATE _____ J

Featuring the NEW and EXCLUSIVE PERFECT®

Safety CLINCHER CLIP®

LOCKS ITSELF SECURELY Under Lip of Rim Eliminating Any Outward Dynamic Thrust

NEAT IN APPEARANCE

PRECISION ENGINEERED GUARANTEED TO BE WITHIN 1/32 OF AN OUNCE CORRECT

NEW DESIGN GRIPS TIGHTER

STAYS PUT

"C" Type Weight

Made for ALL passenger car rims except outside of rims on Cadillacs with large chrome hub caps covering entire wheel or Cadillacs equipped with Sabre spoke wheels. Both these type wheels can be balanced with "C" Type Weights on the inside of wheel. Made in a complete range of sizes.

PERFECT EQUIPMENT CORP.
804 W. Morgan St. KOKOMO, IND. P.O. Box 706
Manufactures of Passenger and Truck Wheel Weights-Coil Spacer Rings-Caster Shims.

SAVE 17% on Amazing FLARE BRAKE FLUID DEAL #100!

Flare

Get 2½ Gallons

SAE HEAVY DUTY (70R1)

BRAKE FLUID

Complete with Dispensing Pump

Regular Dealer Price $19.25

only $15.95*

With Coupon Below!

Retail Service Value $120.00
at "top off" price of 75¢ for 2 oz.

Now save 17% on 2½ gallons of famous Flare Heavy Duty Brake Fluid in re-usable can with flexible pour spout—plus a Special Dispensing Pump! This combination gives you $120.00 worth of easy retail sales for only $15.95! *A gross profit of 86% for you!*

Flare Heavy Duty is the brake fluid experienced service men use to insure top safety and performance. It mixes perfectly with *all* original fluids, helps prevent vapor lock, will not corrode metal, damage rubber parts, or form sludge or gum. Flare's heavy body assures good sealing (with no loss of hydraulic pressure), trouble-free performance, satisfied customers, more repeat business!

Start enjoying these important Flare advantages now while you save with Flare's amazing deal #100. Mail the coupon today!

NOTE: Flare is also available in 12-oz., pint, gallon, 5-gallon and 54-gallon sizes.
*Prices slightly higher in Canada

Fast, Clean, No-Waste Filling with a Flare Dispensing Pump

- One-man operation!
- Delivers 2 ounces per shot—automatically! Pumps out the *bottom* ounce too!
- Universal top fits all standard gallon cans and Flare 2½ gallon cans!
- 7 feet of hose reach every master cylinder!
- Keeps fluid clean, undiluted!

Flare

SAE Heavy Duty (70R1)

BRAKE FLUID

JOBBERS: Contact us for details

THE BELL CO., INC., 411 N. Wolcott Ave., Chicago 22, Ill.
In Canada: Bell Chemicals Ltd., 156 Bathurst St., Toronto, Ontario

SAVE 17%! MAIL TO YOUR JOBBER NOW!

Dear Mr. Jobber:

I want $120.00 worth of retail service value for only $15.95. Send me Flare Brake Fluid Deal #100.

Your Name _____

Your Address _____

City _____ Zone ____ State _____

Converts passing motorists into paying customers!

WEAVER BRAKE TESTER

Easy does it — the WEAVER way

SEEING IS BELIEVING

Motorist can see braking energy of each wheel and degree of equalization indicated by height of colored liquid in calibrated glass tubes. Convincing proof of needed service.

The offer of a FREE BRAKE TEST will lure into your shop a major share of the potential "brake business" that passes your shop every day. Not only will you make big profits on the cars needing brake service now, but the motorists whose cars pass the test will think of your shop when they eventually need repairs.

EVERY FOURTH CAR NEEDS BRAKE SERVICE. That's what the Inter-Industry Highway Safety Committee reports on the basis of 611,441 cars checked in 37 states.

PUBLIC IS "SAFETY" CONSCIOUS. National attention is continually focused on the traffic accident massacre, making the motorists especially receptive to need for safe brakes.

TEST TAKES ONLY A FEW SECONDS. Vehicle is driven onto Weaver Brake Tester and stopped. Tester instantly shows braking energy of each wheel and degree of brake equalization.

Weaver Brake Testers are used throughout the world for Official Vehicle Inspections because they operate faster, are more accurate, last longer, and have no hydraulic or electric connections and may be driven on from either direction. Available in 8 models ranging in load capacities from 6,000 to 36,000 lbs. per vehicle and in either surface or flush type. See your Weaver Jobber today or write us for Bulletin SAJ-476.

WEAVER

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL, U.S.A.

SERVICE SHOP EQUIPMENT

Complete Weaver line includes: Twin Post Lifts . . . Single Post Frame Type Lifts . . . Unit Lifts . . . Bumper Lift . . . Car Washers . . . Wheel Alignment Equipment . . . Headlight Testers . . . Brake Testers . . . Wheel Balancing Equipment . . . Jacks . . . Wheel Dollys . . . and Air Compressors.

FREE

ELECTRIC BEAN POT

WITH ONLY 6 NATIONAL BATTERIES

Your wife and the whole family will praise you for bringing home this modern version of the Early American stoneware bean pot made by West Bend. It bakes beans with the good old-fashioned flavor as well as other favorite hot dishes. Cooking is done to simmering perfection over a chromium plated electric base. Cord and cover are included. Two quart capacity retails at $7.95. Nationally advertised by West Bend.

IT'S YOURS WITH 6 NATIONAL BATTERIES

Here is an opportunity to replenish your battery stock and get this bean pot at the same time.

All you do is buy six National Batteries of any size or type and the bean pots is yours . . . free! National Batteries are top quality and you have an outstanding and proven line to choose from. Act now!

SEE YOUR JOBBER OR WRITE US. OFFER GOOD UNTIL SEPTEMBER 1st

GOULD-NATIONAL BATTERIES, INC.
SAINT PAUL 1, MINNESOTA

Want more facts? Use Reader Service Card Page 118

"LOOK OUT—YOU'LL HIT IT!"

In sudden emergencies, good brakes save lives. Make sure your customers have the best.

Pull a wheel

Look at the brakes

Show the customer what's needed

And when you reline, use Grey-Rock Balanced Braksets, the linings with the difference you can *see*, *show* and *sell*.

SEE the difference. Distinctive Grey-Rock brake linings look different—are different. You can see it in the many different types of linings Grey-Rock combines in sets engineered to give balanced brake action and longer lining life.

SHOW the difference . . . in distinctive Grey-Rock woven and molded combinations. Where used, they provide far better brake action than molded linings alone. In other Grey-Rock sets, all-molded types give best results.

SELL the difference. When you can see and show the difference, you can sell the difference. Explain how different shoes, even in the same brake, do different work, and why different types of lining are necessary for balanced brake action and long wear.

ASK YOUR JOBBER FOR GREY-ROCK FACTORY-BONDED SHOE EXCHANGE FOR HIGHER RELINE QUALITY, LESS LABOR PER JOB, GREATER PROFITS

Only **Grey-Rock** *makes*

BALANCED BRAKSET LININGS

GREY-ROCK DIVISION of Raybestos-Manhattan, Inc., MANHEIM, PA.

Consistently advertised in the

POST and **Farm Journal**

GET IT FROM YOUR JOBBER

RM

RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Laundry Pads and Covers • Packings • Abrasive and Diamond Wheels • Bowling Balls

SOUTHERN AUTOMOTIVE JOURNAL

JULY, 1956

Oak Ridge Did It:

Let's Slap Death's Face

The manufacturers today are alerted to greater safety in our motor vehicles. What are you doing to offset a forecast of highest carnage yet by National Safety Council?

By Warner Ogden

THE National Safety Council predicted recently that an all-time record of deaths from motor vehicles would be written in blood on American highways and streets this year.

Some of the dying will be your friends, some may even be members of your family.

There's a chance yours will be one of those bodies piled up grotesquely in a crash you thought would never happen.

The automobile manufacturers—accused in the past, particularly by physicians, as being disinclined to do anything about safety—have become keenly alerted to the need for making every car just as safe as safe can be. They're spending many millions of dollars every year now toward this goal.

What are you—the car dealer, the garage operator, the super-service station manager and the parts and equipment wholesaler—doing to lessen the chances that you, your family, your friends, or at least somebody else's friends, won't be in that awful mass of statistics which the council says will run above 43,000 in the obituary columns this year?

While you're selling your shop services, are you also doing the plus-selling job of promoting Safety First sales on every car which rolls into your shop door?

Just look at what was uncovered in one instance. What we are about to relate was revealed at hundreds of voluntary safety inspections held in May under the auspices of the council, the Inter-Industry Highway Safety Committee and other national and local agencies.

Of 2,570 cars inspected at the public safety lane at Oak Ridge, Tenn., 1,796 were passed and 774 were rejected. A total of 539 cars, after having defects fixed, returned to the lane and 506 were passed, while 33 were rejected again.

Owners of the 30% which failed to pass the first test may never be able to testify as to exactly what extent their chances of survival were increased by having their units made into safe condition. But the fact remains that within the majority of southern states, where there is no mandatory inspection law, motor vehicles are operating which threaten the lives of their owners and other motorists, as well as pedestrians.

Is a locally-worked-out inspection program, conducted purely voluntarily, difficult to work out? Franchised dealers and service station operators at Oak Ridge said emphatically "No!"

A committee got busy and organized the activity, with all hands agreeing to contribute some of the manpower. So successful was the effort that the May inspection was carried over for an additional two weeks in June, with 65.5% more drivers coming by the lane than was the case a year earlier.

R. B. Barrett of Management

Arthur L. Garrett, Jr., general chairman of the Oak Ridge public safety lane movement, set an example by having his own car inspected early.

6 p.m. on Monday through Friday, and from 10 a.m. to 4 p.m. on Saturdays.

Posters were also put up in promoting the safety move.

Many urged: "Be a Safe Driver —in a Safe Car."

The inspections were made by members of the Oak Ridge Police Department.

Inspections included brakes, headlights, rear and stop lights, wheel alignment, windshield wipers and horn. A car with any defects on these was taken by the owner to an automotive service department for repairs.

And, now, what are your plans for helping the cause of Safety? An all-time high of motor vehicle travel this summer is about as good a time as any to think along these lines and adapt your operation to promoting Safety. Besides, there's no harm in checking a

(Continued on page 106)

Services, Inc., which has charge of the free safety lane, and Arthur L. Garrett, Jr., general chairman of the campaign, felt the results "were well worthwhile."

Boy Scouts and Girl Scouts distributed mimeographed slips, urging inspections, at car parking lots.

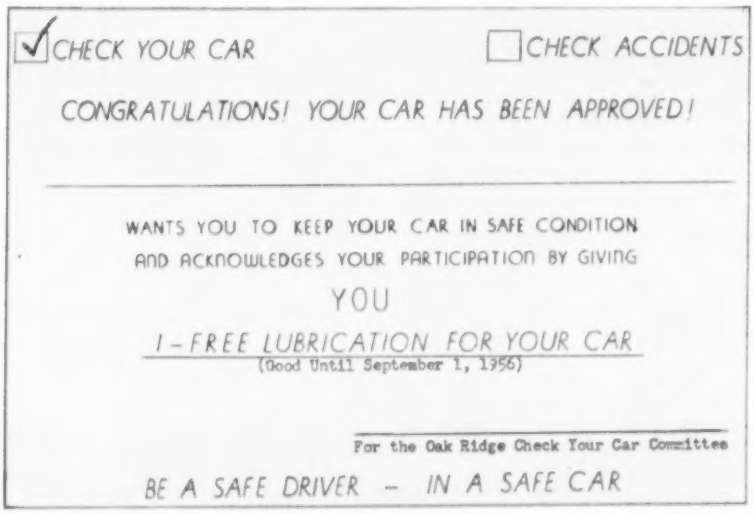
When they saw a car with an old sticker they would leave a slip on the car, reading:

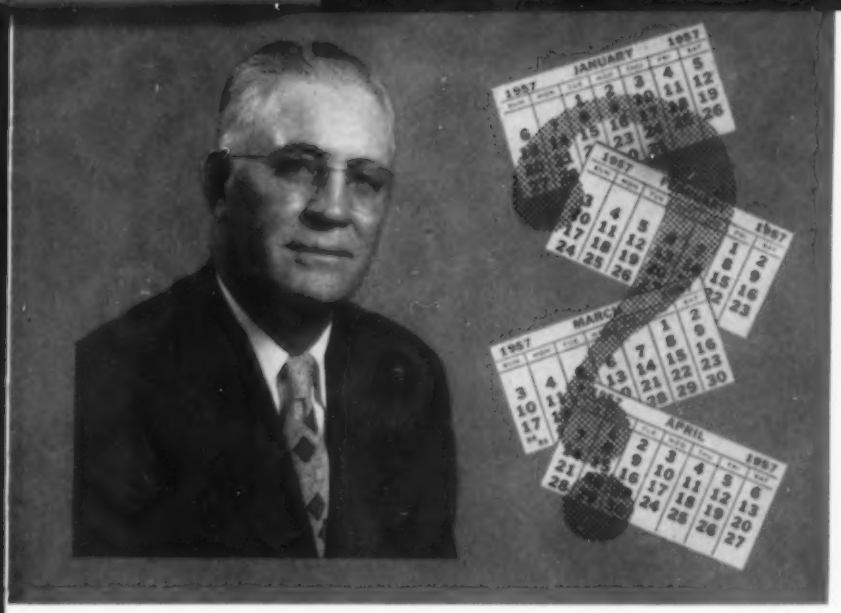
"Your safety lane sticker is old. Visit your Free Public Safety Lane. . . Drivers who check first, last."

The dealers and service stations offered free lubrications to some passing the inspections. A member of the Oak Ridge "Check Your Car" Committee would appear at different times at the lane and present a mimeographed slip good for one lubrication. There was space on the slip to fill in the name of the automobile dealer or service station making the offer that day.

Four lubrication orders were handed out daily and no motorist knew at what time one would be given. So there were cars going through the lane continuously during the hours it was open—Noon to

Right: Safety lane sponsors took turns giving free lubrications to some owners passing the inspection. Above: Boy and Girl Scouts put leaflets like this on cars at parking lots. Similar slips called attention where a displayed sticker was outdated.





Dealers reporting to NADA showed operating profit of .8% the first quarter of 1956. But one southern dealer (see page 137) was complaining because he said he could not get cars for his GM places.

Will 1956 Repeat for Dealers in '57?

By RUSSELL B. LENTZ
President, City Motor Car Co. (Chrysler-Dodge-Plymouth)
Spartanburg, S. C.

ARE franchised car dealers facing in the approaching new-model year the tough competitive situation in trying to sell '57 new cars which they have been up against with the '56's, or will the factories give them a hand?

How much longer will dealers with their expensive facilities for sales and service have to compete against used-car dealers handling the same new cars as the franchised dealers and usually from lots easily developed and easily abandoned?

Will the tiny profits—if any—experienced by the dealers this year continue over into next year, or will factories begin backing up their dealers in a concrete fashion to enable them to fulfill their rightful position as the selling and servicing agent for new cars in their home towns?

Chrysler Corp. has been pretty good about handling complaints where the unreasonable competitive situation has been called to its attention, but every factory must join in the effort if we dealers are to resume making some fair profits next year.

The author is a past president of the South Carolina Automobile Dealers Association and for six years was a director of the National Automobile Dealers Association. He has been a franchised dealer since 1920 and has been president of City Motor Car Co. since 1936.

We're not interested in aimlessly attacking factories for their failure to stop the channels through which brand-new cars have come into the hands of used-car dealers almost the day they rolled off the assembly lines. However, why can't all factories do what happened in one case? Let me tell you about it:

The regional manager asked the complaining dealer to give him the motor numbers off some cars which were on a used-car lot. The cars were traced to the selling franchised holder. The factory man told this dealer that either the cars had to be taken back by him or his franchise would be pulled. The next day the cars were gone off the used-car lot. That's a simple way to get action.

Why wouldn't a few instances like this, repeated over the country, have the effect of serving notice on all dealers that they would have to stop letting used-car dealers have new cars at, say, $50 above their invoice cost or otherwise have their franchises pulled? Word of such factory action would get around fast; it would not be necessary for a factory to gather a lot of records or to threaten a lot of its dealers. Action against a few of the bad boys would soon bring everyone in line. Then the dealer could begin showing a reasonable profit, and most businessmen agree that they are in business to make a little money.

Maybe we should forget all about "selling price," and every dealer would like to, but that is not so easily done when a used-car dealer on an inexpensive lot (generally with no facilities for service) is advertising right beside dealer ads that a new Whoozis is available to the reader at much less than what he would pay the franchised dealer.

Americans are price-conscious enough that they frequently will go for saving a few bucks without considering the long-time pull on which every successful franchised dealer must build his business—and invest in plant facilities accordingly.

One thing is certain: If the factories don't step in to police some of their dealers, especially those near Detroit who can show a little profit even when passing on to a used-car man for $50 gross profit a new car on which the dealer hasn't spent a dime of attention, then we dealers can expect the same difficult sales battle which we have endured now for too long.

Will Detroit help us, or are we to continue clinging to a raft while hoping for God-knows-what to come along to get us up to the safe dry land where profits can be harvested once more?

Who wouldn't smile? The figures before W. Clell Sawyer (left) and his service manager, Glenn Tidwell, show the shop to be quite profitable.

The Boss Solicits, the Shop Pays Off

PERSONAL solicitation — by the boss, too—is one of the two big reasons for the recent rise in profits from the service department at Sawyer Motors, Inc. (Dodge - Plymouth), Gainesville, Ga.

"Service absorption"—the percentage of a dealership's operating expense covered by gross profit from all service and parts operations—was low in June, 1955. Management got busy. The figure began climbing by September, and steady improvement was reported in the months following. The May and June figures this year were high, too.

"Personal solicitation is one of the big changes which we made about a year ago," explained W. Clell Sawyer, president. "Back then we saw that it looked like we were like most dealers in that apparently not much money was going to be made out of new and used cars. The money had to come from somewhere if we stayed in business, we figured, so we turned to the shop.

"Previously we had been letting the service manager be responsible for the entire shop. Then I decided I would go out and call on the best shop prospects—fleets. It knocked them over when I went to J. C. Penney and other places where there were 20 or more cars. I figured that if we got nothing but lubrications at first it was a step in the right direction."

The second big change was the employment of a service manager, Glenn Tidwell, "who is really on the ball," according to Sawyer. "He sticks right on the job and the work gets turned out."

The firm has not expanded its facilities or otherwise made any principal changes to account for the fast rise in shop receipts, Sawyer pointed out, but some newspaper advertising was diverted from used cars to shop promotion. Emphasis has been directed to shop profits rather than hoping to make substantial gains out of the selling of new and used cars.

"As long as dealers insist on fighting each other for every last penny of profit in car sales, then dealers are going to have to turn to the shop for money to stay in business satisfactorily," he said.

Service operations carry much of expenses because of this dealer's program.

"We look forward to the time when we can enjoy again the 'pleasant custom of making money,' as Admiral Fred Bell of the National Automobile Dealers Association mentioned the other day. We look forward to the time when we can make the kind of profits to which any dealer is entitled in the selling of cars.

"However, until that time returns, we are emphasizing the profit side of our shop operations.

Until there's more profit in new and used cars, this dealer said he planned to use more of his contracted newspaper ad space in pushing profitable shop services.

"Until that time does return, then we'll probably continue to push the shop in our newspaper ads, rather than stressing used cars in those ads. It just doesn't make much sense to advertise cars which are sold at no profit.

"There are some real profits in the shop, as we now know, so there's where our bread and butter must come from until other dealers over the country agree that when a car is sold, the dealer should get some profit out of the business.

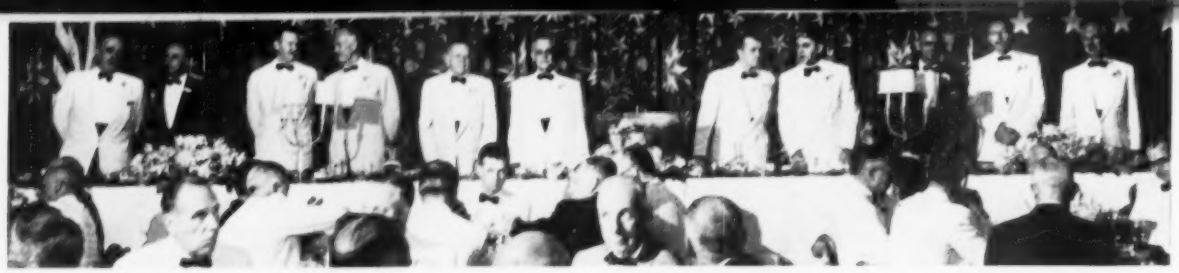
"We'll continue selling new and used cars, but we can't expect too much profit until all hands agree in the industry on the correct principles for a business.

"A business should be operated first for profit, we think."

For Safety's Sake

The publishers of this business journal are proud to acknowledge receiving two awards this year for editorial efforts in the cause of safety — from the National Safety Council (above) and from the Inter-Industry Highway Safety Committee (right). A prime factor was the special safety issue of April, 1955. In the columns of this magazine, from time to time, garagemen, dealers and wholesalers have recited the need

for all hands to promote every aspect of safety when dealing with customers. Just how effective has this— and the work by many others in this industry — been? The answer can best come from you. For example: Does someone in your shop regularly check the muffler, tailpipe, front-end, windshield wipers, glass, brakes, horn and the other elements of safety on every customer's car?



Left to right: Allan Mims of Rocky Mount, N. C., NADA treasurer; Walker A. Williams, vice-president, Ford Motor Co.; William H. McGaughey, v-p, American Motors; Ivan L. Wiles, executive v-p in charge of dealer relations, General Motors; Postmaster General Arthur E. Summerfield; Carl E. Fribley of Norwich, N. Y., NADA president; Frederick J. Bell, executive v-p, NADA; Dr. Arthur F. Burns, chairman, Council of Economic Advisers to President Eisenhower; Charles L. Jacobson, v-p, Chrysler Corp.; Frederick M. Sutter of Columbus, Ind., first v-p, NADA, and Birkett L. Williams of Cleveland, NADA secretary.

NADA's "At Home" for the Industry

Top sales chiefs of the car factories, finance company presidents, senators and high governmental officials turned out last month at the Statler Hotel in Washington, D. C., for the full-dress reception and dinner given by the National Automobile Dealers Association. Among well-known Southerners present were (at right) W. S. Edwards, Jr. (1), of Birmingham, Thomas F. Abbott, Jr. (2), of Fort Worth, Texas, Paul R. Lauritzen (3) of Richmond, Va., and Walter M. Duncan (4) of Beckley, W. Va. Also appearing with government and factory executives below you see John H. Lander (5) of Atlanta, Ga., H. Mead Norton (6) of Oklahoma City, Okla., and Charles B. Tutan (7) of Miami, Fla. All are NADA directors named from their states. Twenty of GM's topflight executives were on hand, as were other sales directors and newly-named dealer relations factory officials.

Controlling Money, Men, Records

By J. R. PURSER
Owner, Purser Shell Service
Charlotte, N. C.

IT IS too bad that station operators don't get the same help in setting up systems and bookkeeping methods that they get in merchandising and selling.

The selling end of this game is where the profit is, of course, but there are a couple of strong points to be made for good management methods. The reason I say that is because we have just finished our first full year of using a completely mechanized bookkeeping system, and I am converted for life!

I would like to outline exactly what our troubles were and then tell you how we overcome them. It might supply a "missing link" in your own business.

To begin with, I would like to review a number of common problems that are faced when service station systems are installed. Then I would like to show how the system will become sluggish and unwieldy when a heavier load is added. This was our experience when we added the bookkeeping of Purser Fuel Oil Service, which is operated in partnership with my brother, H. D. Purser.

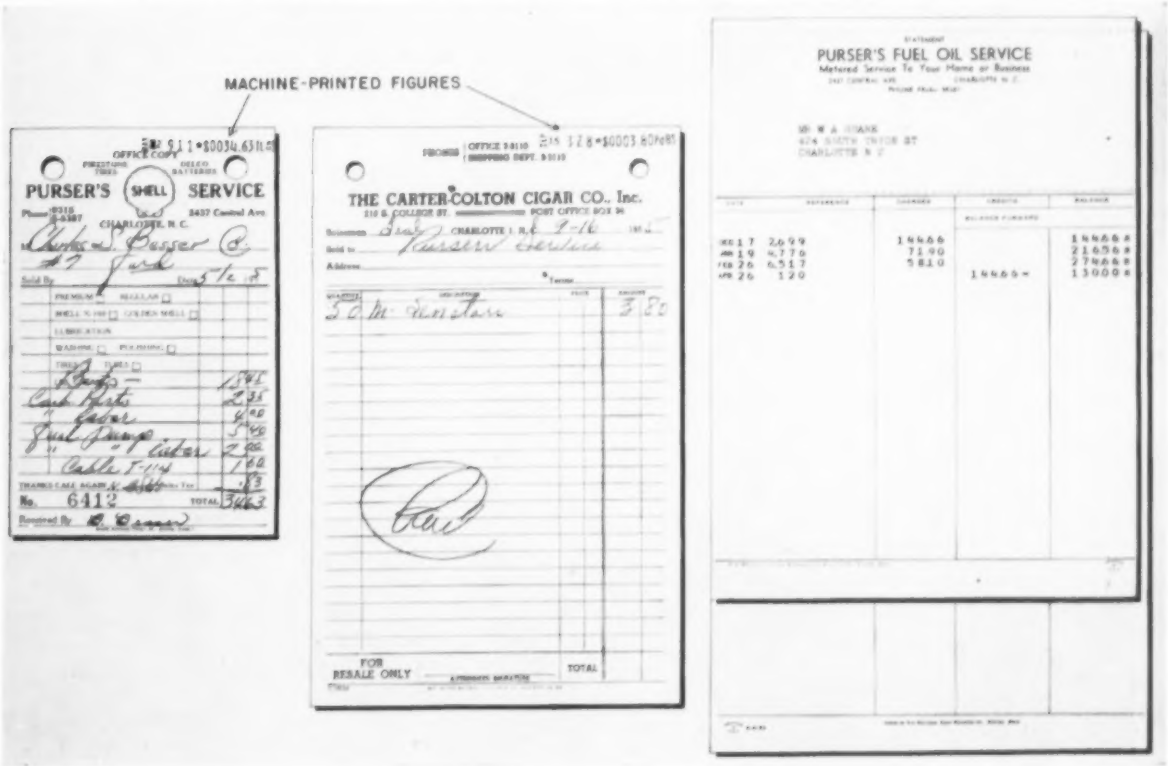
1. *Forgotten charges.* You know how this happens. A customer drives up, buys ten gallons of gas and says, "Put it on my bill." The customer is sure he got the gasoline, but it is immaterial to him whether you got a record of the sale. As a matter of fact, many people carry charge accounts with all stores, simply on the hope that they won't have to pay for everything they buy.

A service station is much more likely to have forgotten charges than other lines of retail business because the station systems just are not geared to handle charge transactions. Most of the operators and employees do not realize the dollars-and-cents seriousness of forgotten charges, and the problem is attacked with haphazard solution. Very few stop to realize that a station with 16 to 20 charge sales a day has something like 6,000 opportunities a year to "forget". If only one $3.00 charge per day is forgotten, that's a loss of over a thousand dollars a year in net profit.

2. *Mistakes in addition.* Most of us are not expert mathematicians. We were never required to be 100% accurate in school, and could "get by" with 70% or better. In spite of the knowledge that mistakes are bound to occur, many persons try to add mentally when customers buy several items in the station. There is still no guarantee of accuracy if an employee does the arithmetic on a scrap of paper. He's got to have an answer in a hurry, and if he discovers later that he was wrong, there is practically no way to recover the loss.

3. *Lack of control over transactions involving cash.* If a station sold nothing but gasoline,

Here are samples of basic records in the mechanized system at Purser's. At left is a validated charge slip; in center is a validated paid-out voucher; at the right is displayed a machine-posted statement and ledger.



J. H. Purser itemizes a sale on the cash register. Machine accumulates 14 separate totals and has an individual cash drawer for each employee authorized to handle money and records, eliminating any possibility of shortages.

H. D. Purser posts customer's account on the desk-model bookkeeping machine. This machine handles all of the computations automatically.

and all sales were for cash, there would be no problem. Meters and cash would have to balance. But today more than half of gross profit comes from the sale of other merchandise and services. On top of that there are thousands of transactions a year that involve money received on account and petty cash paid out for goods and services. Obviously, this is where the control is needed.

If an employee favors friends and relatives, or if an employee takes merchandise for his personal use and makes no record, or if there is some other type of manipulation, a business can literally go under before it is discovered. The ways of manipulation are many and varied, some simple, some complex. I am not going to go into them here.

I have tried to outline what I believe to be the three major problems in service stations. You will note that all three revolve around weaknesses of human nature. That is, losses from forgetfulness, carelessness or temptation could not be put in the same category as losses caused by leaking gasoline pump. The pump can be repaired or replaced, but the human weaknesses have to be controlled. We are all susceptible to them.

I would now like to describe the system that provides best control over money, men and records. The setup was not worked out by us overnight, but was developed after a careful study of what we needed in the business. It is built around two modern business machines. This is the best way I have found to obtain mechanical protection over all transactions. At the same time the system is easy for an employee to learn, as well as fast in operation.

The first machine is a 14-total, four-drawer cash register through which all transactions are cleared. The second machine is a desk-model bookkeeping machine which handles all of our accounts receivable bookkeeping. I would like to trace several transactions through the system to show you how it works, and, more important, to show you *why* it works.

All station transactions must go through the cash register. This is a cardinal rule of the system. Our seven regular employees and any temporary part-timers all understand the rule.

When a customer makes a cash purchase of, say, gas, oil and some accessory, the attendant itemizes the sale on the machine. He touches the initial key that controls his individual drawer, the department key that identifies the merchandise, and then sets up the amount on the keyboard and operates the machine. When he has recorded the various items in this manner, using the respective department keys, he takes a total. The machine prints the total on the detail tape inside the machine, and also indicates it in the cash register window.

At the same time the machine accumulates the amounts in the

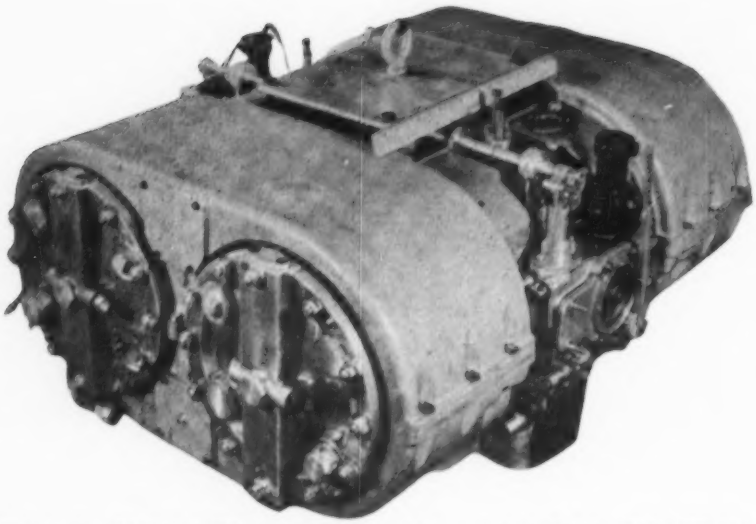
(Continued on page 78)

The mechanized bookkeeping system has reduced management problems here.

Safety Service

Fred Cruikshank's new home for Bear Safety Service in Selma, Ala., has grown into this handsome building with its drive-straight-through safety lane (left) from his start ten years ago with $3.67 in the bank and a "fervent prayer" on his lips.

The firm offers only the services advertised below, plus muffler and headlight work. In a normal month 500 cars are serviced. Brake lining is guaranteed for the life of the car (see page 92). Only oversize lining is used. "And so far in about four years we haven't had a customer come back with it worn out," said Cruikshank, a college graduate who was formerly service manager and adjuster for Goodyear Tire & Rubber Co. in Atlanta. The roof of the 90' by 50' shop is insulated with fiber-glass and overhead are located several large fans and two big heaters.



This is the GMR 4-4 "Hyprex" engine, which was installed in GM's XP-500.

The combination of free piston engine and a gas turbine "will become a serious contender" for powering cars, trucks and buses, asserts this expert who heads up the Mechanical Development Department of the huge Research Staff of GM. Here you are told something of its workings.

GM's Free Piston Engine

THE combination of free piston engine and gas turbine "will become a serious contender for powering automotive vehicles"—trucks, buses, military machines and passenger cars—a General Motors Research Staff engineer said at Atlantic City, N. J., last month.

Speaking before the Society of Automotive Engineers' summer meeting, Arthur F. Underwood described GM's new 250-horsepower version of this combination, the first so-called Siamesed unit in XP-500, GM's latest experimental automobile now in its early research stage.

XP-500, unveiled publicly May 16 at the GM Technical Center dedication, has a free piston gasifier under its hood that compresses and pumps air through a 3½" pipe to a gas turbine at the rear. Power from the revolving turbine is transmitted to the car's wheels.

This particular design was selected because of its compactness, lightweight, improved efficiency and quiet operation, Underwood said. In engineering language it is known as GMR 4-4 Hyprex (high pressure and expansion) engine.

The gasifier unit is 40" long, 34" wide and 18" high. It has a pair of parallel power cylinders, similar to two-cycle diesel cylinders, each 4" in diameter. Its four air compressor pistons, which bounce back and forth in the two cylinders, each are 11" in diameter with a stroke of approximately 5".

Underwood explained that because the free piston-turbine combination has no crankshaft, connecting rods or propeller shaft (such as gasoline or diesel engines), power for such items as power steering, engine cooling and other accessories was a special problem

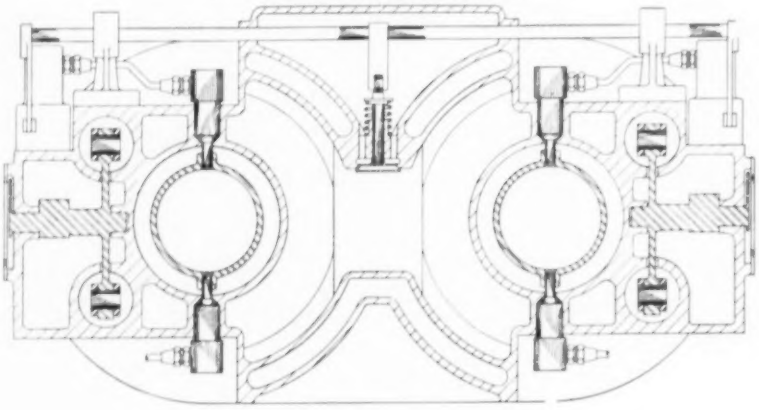
XP-500 has no rotating shaft for driving an engine fan, water pump, generator or other accessories, usually driven by a fan belt in a conventional automobile. Instead, a high-pressure hydraulic pump is operated from the car's rear-end transmission unit.

Hydraulic tubes lead to a location under the car's hood where a hydraulic motor turns the radiator fans and water pump. "We have found this system to be very efficient over a wide range of horsepower requirements," Underwood reported.

The car's chassis, he said, was specially designed with side frames large enough to house the insulated 3½" pipe connecting the gasifier with the turbine—in the left side frame.

The right side frame is used to

Section of GMR 4-4 "Hyprex" engine.



house hydraulic power tubing and other lines from rear to front of the car. Because the free piston gasifier under the hood has little overall height, the car's frame can be stiffened by cross members across the engine compartment.

Underwood, who heads GM Research Staff's Mechanical Development Department, pointed out that GM Styling designed the XP-500 body to take advantage of the fact that no toeboard transmission hump or propeller shaft tunnel is needed.

"It is the first car in many, many years in which the middle passenger in the front seat has as comfortable space to place his feet as the other passengers," he said. "Rear-seat passengers find a similar advantage."

Piston-Turbine Vs. Today's

In comparing XP-500 with today's automobiles, Underwood listed some of the major features the new combination of a free piston engine and rear-end turbine would have:

1.—Free piston engines are insensitive to fuels, regardless of whether they're burning kerosene, No. 2 diesel oil or bunker "C," the cheapest petroleum fuel on the market. They also operate satisfactorily on gasolines up to 100 octane.

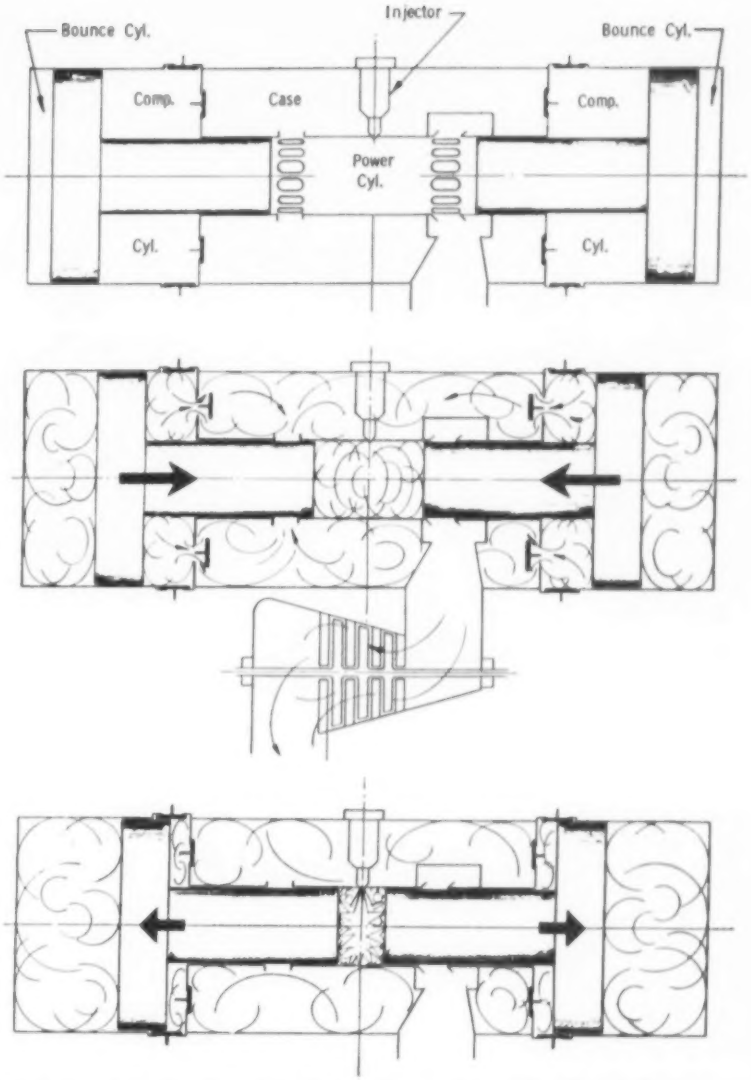
"While it may be premature to predict that the fuel will not have to have any specifications (such as octane numbers)," he said, "it is certain that the specifications can be held to a minimum compared to requirements of other engines."

"It will be interesting to have an engine which is not definitely designed and limited by many requirements of fuel quality," he added.

2.—Efficiency of the free piston-turbine combination is the product of the gas efficiency of the free piston gasifier and the turbine. Underwood said the gasifier or "air pump" section can operate at compression ratios ranging from 30-to-1 up to 50-to-1.

Thus, engineers give the free piston engine a high thermal efficiency rating, meaning that it puts more heat to work than other engines. "This makes it competitive with the high-compression ratio engines and diesel engines that we have today," he explained.

"As far as the customer is concerned," he said, "his desire is to obtain the most horsepower hours for a given amount of money. If, now, the free piston engine uses a cheaper fuel at the same thermal efficiency of a crankshaft engine, then so far as the customer is concerned, the efficiency of his fuel dollars is higher when he uses a free piston engine."



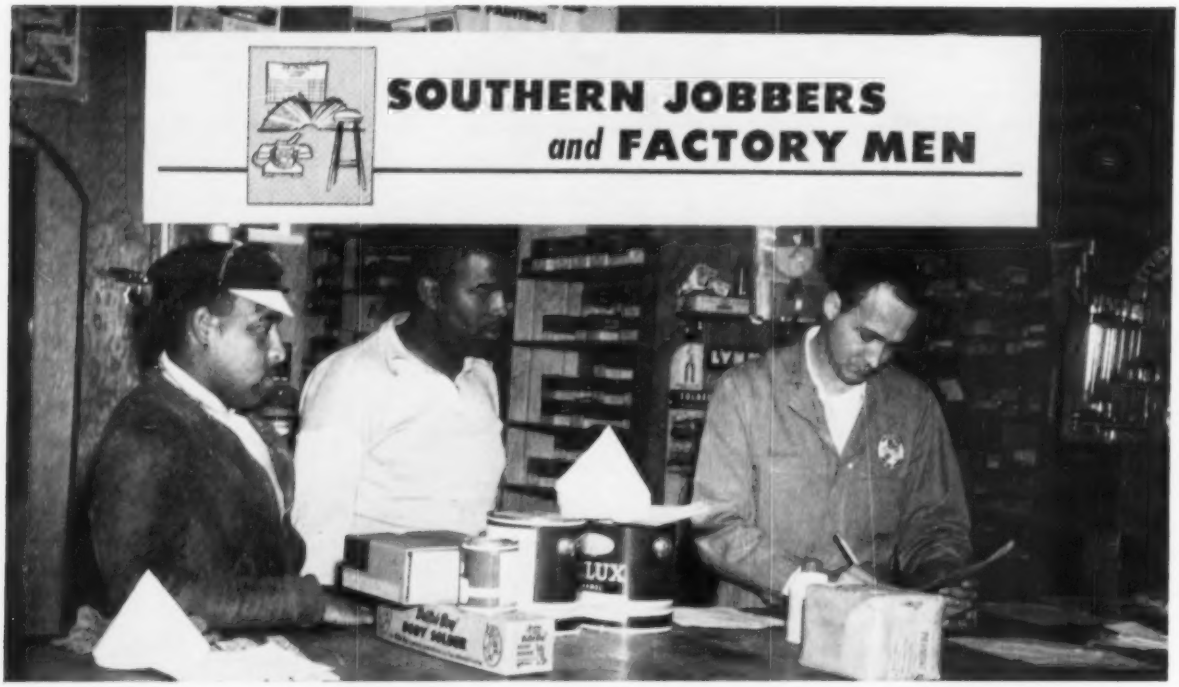
Here you see the first stages of the operating sequence of the inward compression of the free piston engine. Top: Idealized section showing pistons in starting position. Intake and exhaust ports open. All valves closed. Middle: Starting air pressure admitted to bounce cylinders. Pistons move inward, closing ports, compressing air in power cylinder and forcing scavenging air from compressor cylinder into case. Above: Pistons complete inward travel. Fuel is injected into power cylinder. Combustion starts and power stroke begins.

3.—Free piston engines are inherently balanced. Engineers need only be sure their major moving parts have exactly the same weight. Otherwise, no special engine mounts are needed to eliminate vibration or so-called torsional movement from spinning flywheels and crankshafts.

4.—The free piston-turbine combination has good torque in the low-speed range where most of today's driving is done. Thus, it appears only a simple two-speed transmission would be needed for this combination to match the performance of today's engines with their automatic transmissions and torque converters.

5.—The free piston gasifier under XP-500's hood pumps low temperature exhaust to the power turbine at the rear of the car, and this results in a number of real and definite advantages, Underwood

(Continued on page 85)



Wayne Greene prepares to dispatch two deliverymen, Ted Caudle (left) and Robert McClure

Cutting down Delivery Costs

PIEDMONT Auto Exchange officials believe they have solved at Charlotte, N. C., some of the headaches involving delivery costs. What was instituted late last year has worked out every bit as well as President Dowd M. Biggers had hoped for — from a cost of 70¢ per order to an estimated 60¢.

Jobbers over the South and Southwest have been reporting their dissatisfaction with the rising delivery expenses at a time when, for many of them, the net was tending to decline even though the gross volume was frequently running higher than the preceding comparable period of 1955.

In some localities the wholesalers have managed to minimize deliveries, or eliminate outright "hot shot" deliveries, but there has remained for most companies the necessity for meeting the needs of customers.

One southeastern executive, seeking to cut sharply the demands for local deliveries of orders which often ran only a dollar or two, even announced his company would give a 5% discount on merchandise picked up at his counter by the customers. The additional expense was offset by the lower overhead for deliveries, to a great degree, and some customers even bought more items from him, this official reported. But fellow wholesalers in this particular city frowned upon the additional discount, especially since it involved lines which they also sold. Protests were being contemplated to factories by some competing jobbers.

But the system inaugurated at Piedmont Auto Exchange did not involve any special discounts. It has resulted in getting more deliveries per deliveryman, which automatically brought down the overhead.

Wayne Greene was assigned the job of routing the three city deliverymen so they could handle a maximum number of deliveries on a specific route indicated by the orders to be delivered. There was to be a minimum of jumping about over metropolitan Charlotte and, to make certain that this was achieved, an occasional invoice was marked up to show when the deliveryman actually left the store and subsequently the time of the man's return was noted.

"At first we thought Wayne's time would be taken up almost entirely with his work of routing out the men," said Biggers, "but our experience has shown that actually he has time left over to fill orders and help out the three countermen.

"He has been able usually to route a man in about ten minutes and this frequently has required the deliveryman an hour or longer to dispose of these orders, so Wayne was able to work at other jobs.

"We had received complaints last year about our delivery service and that was when we made the change from the previous random deliveries. We have seldom found it necessary today to deliver just one order.

"Some time ago our study had shown our delivery costs were running 70¢ per order. Now I would estimate this has been cut to around 60¢ and delivery serv-

President Dowd M. Biggers smiles up at W. P. Cassels, sales manager and purchasing agent, because his records show lower delivery costs.

ice generally has been improved around 15%, I would say."

As Piedmont's sales have increased, there was the growing likelihood, too, of having to take on an additional deliveryman and one more motorcycle or pick-up truck, Biggers pointed out. The improved efficiency has at least deferred the time when this may be necessary.

The three city deliverymen average around 100 trips a day, or approximately 33 per man, the official said.

"Our customers seem to be satisfied with our present arrangement and our sales volume is moving right along, so we think our system is okay," he said. "The ideal thing might be to have no deliveries at all, but we don't see how a jobber can say that he's in a service business and not provide some systematized plan of deliverying orders to customers."

Studies by associations and by individual jobbers have shown a wide range of costs per order delivered. The figure has been affected by a number of elements, including the size of the community served and whether "hot shot," hourly or twice-a-day deliveries, etc., were provided.

One wholesaler not long ago pointed out to editors an order which involved less than 25¢ and then estimated his cost of delivering that item to a good customer who was in a "big hurry" at nearly $1.

"It would have been much cheaper for us if we had had the courage to tell that garage operator that we'd give him the merchandise if he would come for it, but we didn't want to lose his business and hoped instead that his orders would continue to run an average well above the few pennies involved in this particular invoice," he said.

Studies by associations have shown many jobbers' net profits to be declining. Recognizing this, in some smaller communities the several jobbers there have agreed to eliminate virtually all deliveries except where bulk or weight dictated that an exception be made. At conventions where these jobbers have talked informally, they reported that the no-delivery arrangement had been accepted fairly gracefully by their customers. But always, these jobbers have pointed out, there exists the possibility that some competitor might arise to upset such an applecart.

Fleming of Columbia Dies

D. M. Fleming, salesman for Jenkins Automotive Parts Service, Inc., Columbia, S. C., died suddenly of a heart attack recently. He had been with the company ten years, eight of them as outside salesman.

Dallas Committee Selects Beeler of Schoellkopf

APPOINTMENT of Sam C. Beeler as advertising chairman was announced at a recent meeting of the Dallas wholesalers as plans were laid for hosting the booth conference which will be part of the annual convention of the Automotive Wholesalers of Texas at the Statler-Hilton Hotel in Dallas Oct. 25-26.

Ad Chairman Beeler

Beeler, who is automotive division manager for The Schoellkopf Co., said, "We have extended over 370 invitations to both local and national manufacturers and are very pleased with the ratio of acceptances."

Manufacturers who accept invitations will be assigned booth space, Beeler pointed out, but there will be no exhibiting. "The booths," he said, "will be used for small-group, informal discussions between manufacturers' representatives and automotive jobbers."

Langness Named for South

J. L. Langness has been appointed southern regional supervisor of the automotive service division of Chicago Pneumatic Tool Co. As a result of Langness' appointment, Paul Mitchell will handle the East Texas and Louisiana territory and W. O. "Pete" Wossum, formerly of Boyd Smith Auto Supply of Lubbock, Texas, will represent the company in West Texas.

McQuay-Norris, Eis and **Hastings** rebuilt lines have been added by **Alexander-Seewald Co.**, Atlanta, Ga., General Manager **Art Hilts** reported.

United Motors Moves Two For Closer Contacts

Two personnel shifts to establish closer and more effective liaison between United Motors distributors, their dealer accounts and United Motors Service have been announced by Roland S. Withers, general manager of United Motors Service Division of General Motors.

Thomas F. Plant and Harry P. Schaller, assistant general sales managers, have been moved from central offices in Detroit to new headquarters in the field, where they will have closer daily contact with the zone organization. Plant will headquarter in New York and Schaller in Chicago.

Top: Thomas F. Plant
Above: Harry P. Schaller

"Both of these men, long-time staff members of United Motors, have a wealth of experience in the automotive parts and accessory business," Withers said. "We are determined to make the United Motors field operation as effective as possible, to bring better service to our distributors and consequently to the motoring public of the nation," he added.

Schaller, who has been with United Motors 35 years, formerly was zone manager in Memphis and St. Louis. Plant, who is also a former St. Louis zone manager and southern regional manager, joined the organization in 1939.

National Standard Parts Association has appointed Robert W. "Bob" Nix additional field secretary, according to J. L. Wiggins, executive vice-president. Nix, who will make his headquarters in Albany, Ga., will devote a greater part of his time serving automotive wholesalers in the Southeast. He worked at one time with Jenkins Automotive Parts Service, Inc., Columbia, S. C., and had recently been employed by the electrical firm of Ferrell-Wight at Albany.

●

Sooner Boosters to Honor B-37's Past Presidents

A TESTIMONIAL dinner for past presidents of Sooner Automotive Booster Club B-37 will be held Sept. 8 at the Biltmore Hotel in Oklahoma City, B-37 President Ken Stout announced last month.

Past presidents and their wives of nearby clubs will be invited, as are all Boosters, he said.

A well-known speaker has tentatively accepted an invitation to address the banquet.

At the monthly meeting last month the club also laid plans for the annual jobber-Booster party. It will be held Oct. 27 at the Biltmore. A stag affair, the program will last the full day.

Shain Manages Kaufman

Leon A. Shain is the manager of Kaufman Bros., Inc., Greenville, S. C., following the death of Herbert F. Katz.

"We have added **Filt-O-Reg** to our line," reported **K. P. Allen**, executive vice-president of **Motor Supply Co., Inc.**, Meridian, Miss.

Charles R. Crowder (top), formerly executive vice-president of the former Van Norman Co., has been named president of the newly-formed Van Norman Machine Co., a subsidiary of Van Norman Industries, Inc. Selby F. Greer (center), former Van Norman vice-president and sales manager, has been elected president of Van Norman Automotive Equipment Co., also a subsidiary, and Philip D. Moulton (bottom), formerly eastern sales manager for Van Norman, has been named vice-president.

●

Auto Spring Hires Waller

Harry Waller, formerly territory salesman for Archenhold Automobile Supply Co., has joined Auto Spring Supply Co., Wichita Falls, Texas, as salesman to cover the southern territory, Clyde Bassett, sales manager, announced.

68% List Higher Volume for Year; Drought Still Plagues Some Spots

SIXTY-EIGHT per cent of the wholesalers answering a survey letter mailed to 350 over the South and Southwest last month reported higher sales the first five months of this year than the same period of 1955. The percentage was held down by inventory cutting and by dry weather.

Eighteen per cent said their volume was the same. The remaining 14% said sales were down.

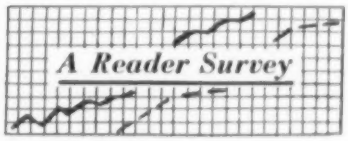
However, quite a number of respondents expressed a bright outlook for the entire year. An Alabamian, a veteran in the business who has worked in a number of states and who has long been in the aftermarket industry, commented:

"Our volume is up 33½% for the first five months. We are hopeful this is the year."

Price increases undoubtedly accounted for some higher figures, as evidenced by this report from a West Tennessee executive:

"Increase of 20% for the five months, of which 10% is price increase and 10% is just working a little harder."

Sail fishing at Acapulco, Mexico, were these winners of AC Spark Plug Division's Group "A" and "B" first place awards in Region 7. They are (l. to r.): Tommy Thompson, Mountjoy Parts Co., Houston, Texas; Clyde Murff, Noel's Auto Electric Service, Inc., Jackson, Miss.; John Patrick of Mountjoy and Willis E. Johnson of Noel's.



Some areas of Texas and New Mexico were especially complaining about effects from the drought. A Texan whose volume was down 6% said:

"We need rain and plenty of it. Farmers, on whom we depend, are facing a crisis due to cotton acreage cut and drought and the need for new, deeper-water wells, putting the farmer and the small businessman behind the eight ball with worry ulcers. However, this situation has arisen before, and due to this area being a God-fearing and -trusting community, we have always passed the crisis and we will do it again, God willing."

A well-known Florida house reported sales off 18% (although many Florida firms listed some good upturns) and attributed this to "watching credits and margin of profits more closely and reducing inventory on short-profit items."

A Texan whose volume has fluctuated partly because of personnel changes observed:

"Our outlook for the balance of the year is optimistic. We have just hired a sales trainee who will be used to develop new business when his training is completed.

"We have been expanding our line coverage on key lines and have been closing out duplications. We have developed a continuing program of education throughout the organization which has upped morale and increased output. We now have six *selling* salesmen.

"Sales are good, collections are good and the future looks wonderful."

But collection troubles were cropping up over the territory.

George A. Poe, formerly western and central regional sales manager for the Toledo Steel Products Co., Cleveland, O., has been appointed sales manager. He succeeds Carl L. Kahlert, who is now administrative manager in the Replacement Division of Thompson Products.

All officers were reelected at the spring meeting of the Automotive Advertisers Council late in May at Hot Springs, Va. Officers include: S. R. Robinson (numeral 1) of Grey-Rock Division, president; Herman C. Teetor (2) of Perfect Circle Corp., vice-president; R. K. McConnell (3) of Federal-Mogul Service Division, treasurer; Frank F. Schuhle (4) of General Electric Co., corresponding secretary; M. Robert Wolfson (5) of Maremont Automotive Products, recording secretary, and George W. Stout (6), who is the executive secretary.

K-D Opens Memphis Warehouse

K-D Lamp Co. of Cincinnati, O., has announced the opening of its Memphis, Tenn., warehouse at 230 Washington Street. Paul Oxley and Earl Potter are district managers for the territory served by this warehouse.

(More Jobber News on page 127)

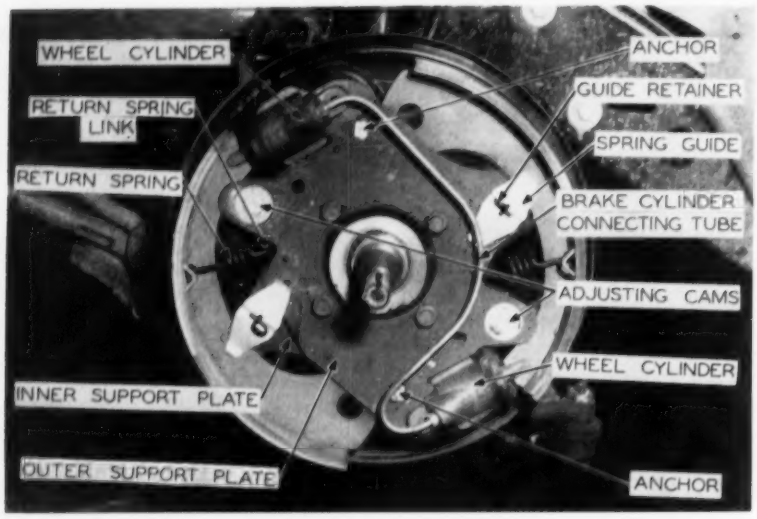


Fig. 1—Components of Center Plane front brake.

How It Works and Servicing

Center Plane Brake

THE new type of service brake known as the "Center Plane brake" is being adapted to more and more of the Chrysler Corp. cars.

What do the engineers mean by the term "Center Plane"? They simply mean that the wheel cylinders and brake shoe return springs are mounted right in line with the center plane of the shoe.

This arrangement has many advantages. For one thing, the forces that apply and release the brake shoe all work in a single plane.

The brake shoe design and method of support are the main differences between the center plane brake and the current production brakes. Additional differences are: Full floating shoes, with a center plane support of these shoes between two steel support plates, and an increased width of lining.

The braking action is centralized between the two center plane supports. These plates align the shoes and hold the anchors and wheel cylinders.

Side rattle of shoes is controlled by spring guides, as shown in Fig. 1. The guides maintain constant pressure against the web of the shoes.

The wheel cylinders operate in the same manner as the conventional cylinders, but are mounted to the center plane supports.

Service information:

Removal of front brake:

1.—Block the brake pedal to prevent any downward movement of the pedal.

2.—Remove front wheel and drum as an assembly after backing off the adjustment cams.

3.—Using tool C-3462, remove the shoe return springs. The end of the tool should be inserted between the spring link and support plate assembly. With the tool cam slot engaging the spring hook, turn handle of tool to disengage springs. Do not use brake spring pliers or damage to the lining will result.

4.—Turn the brake shoe guide retainer one-quarter turn. This releases guide retainer from slot in support plate. Then remove guide retainer and guide. *Note:* The lip on the end of the spring guide is used for positioning the spring guide on outer support plate.

5.—Slide the shoes from between the support plates. Should it become necessary to remove the brake support plates because of damage, proceed as follows:

6.—Remove bolt and washer attaching each wheel cylinder to support plate assembly. This is done from the back side of the brake shield.

7.—Remove the four retaining bolts that attach the center plane support plates and brake shield to steering knuckle. Pull support plate assembly (wheel cylinder attached) out and away from steering knuckle and brake shield. *Caution:* Use care to prevent damaging brake tubing, if flex tube is not disconnected.

Note: It may be necessary to remove sealing compound at rear wheel cylinders to allow separa-

By E. M. Lowery
Technical Editor

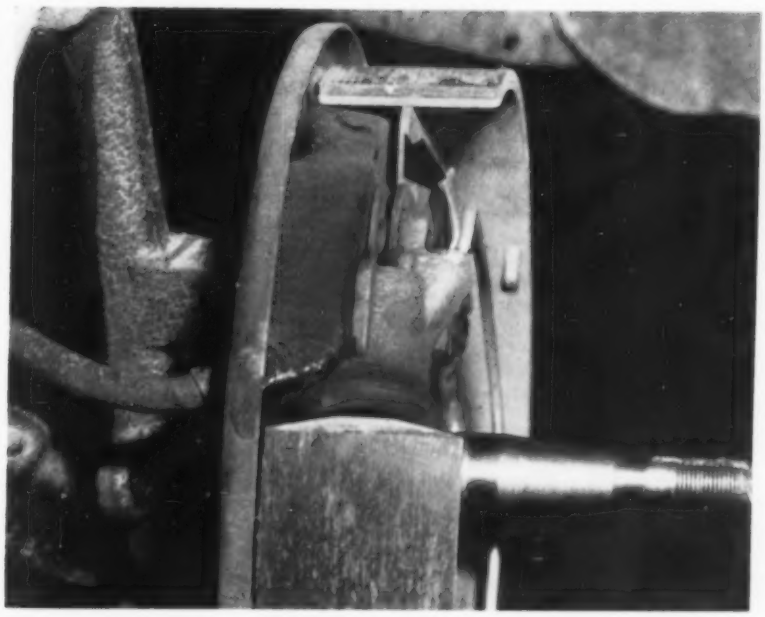


Fig. 2—Arrow indicates where shoes ride between support plates.

tion of wheel cylinder assemblies from brake shield.

Caution: Protect dust seal surface of spindle from being damaged by brake shield.

8.—Slide brake support plate assembly from wheel cylinders, being careful not to distort brake cylinder inter-connecting line. Check the condition of adjusting cam dust seals on support plate. If cracked or deteriorated, install new ones at assembly. If inspection reveals it is necessary to recondition the brake cylinders, recondition or replace as necessary.

Installation of front brake:

If the brake support plate was removed, re-assemble to knuckle and shield as follows:

1.—Carefully position the wheel cylinders between the center plane support plates. Do not distort wheel cylinder inter-connecting line.

2.—Slide the brake support plates (with cylinders installed) over spindle and against brake shield. Be sure the adjusting cam dust seal washers are in place.

3.—Install the wheel cylinder retaining lockwashers and bolts. Snug down but do not tighten. Install the four support plate and brake shield attaching lockwashers, nuts and bolts. Tighten to 35 foot pounds, then tighten the wheel cylinder attaching bolts to 20 foot pounds.

4.—To prevent dust, water and foreign matter from entering the brake drum, apply body sealer. Apply sealing material liberally and work well into areas.

5—Slide brake shoes into position between the support plates (Fig. 2). Be sure the ends of the cylinder push rods engage the toe end of the shoes properly. Install the brake shoe return springs, using tapered end of tool C-3462.

Be sure the long end of the spring is hooked into the web of shoes to prevent coil of spring contacting shoes.

6.—Check the tension of brake shoes and return springs. Spring tension can be checked by hooking a scale at the toe of the shoe and pulling in direction of piston movement. Scale should read from 35 to 45 pounds at the instant the toe of the brake shoe moves. *Note:* A dial indicator may be used to indicate the movement.

7.—Install brake shoe spring guides and retainers. Be sure the positioning lip guide slides into the hole in support plate. Back off the adjusting cams, then install drum, wheel and tire assembly. Adjust front wheel bearings.

8.—Adjust brakes as described later under brake adjustment.

Removal of rear brake:

With the brake pedal blocked to prevent downward movement, proceed as follows:

1.—Back off adjusting cams.

2.—Remove rear wheel assembly. Remove the drum, using puller tool C-845. Using tool C-3462, remove the brake shoe return spring.

3.—Turn the brake shoe guide retainer one-quarter turn. This releases retainer from slot in support plate. Then remove retainer and spring guide. Now slide shoes out from between support plates.

Examine lining for an out-of-alignment wear condition. If the shoes or center plane support plates are twisted or damaged, they should be replaced.

Should it become necessary to install new center plane support plates because of damage, proceed as follows:

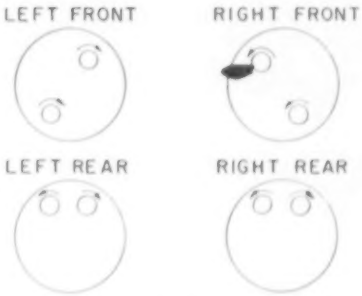


Fig. 3—Showing direction of cam rotation for brake adjustment.

4.—Remove the bolts and lockwashers attaching the wheel cylinder to the support plates, from back side of brake shield. Remove the five nuts and lockwashers that hold the support plates to the brake shield and axle housing flange.

Slide support plates out and away from axle. Check the condition of the adjusting cam dust seals. If cracked or deteriorated, install new ones at re-assembly.

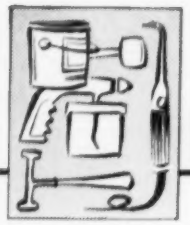
Installation of rear brake:

1.—Slide brake support plates over axle and down against shield. Install wheel cylinder mounting

(Continued on page 84)

August: Fuel Pumps in Hot Weather

You know what hot weather often means to the fuel pump. Maybe, however, the article by Technical Editor Lowery next month will help you with any "bugs" in this service.



BODY SHOP OPERATIONS

Coping with the Silicones

By E. M. Lowery
Technical Editor

WE WERE visiting one of the larger paint shops in town in search of some new "angle" on car refinishing when we heard one of the sanders call the paint foreman over and say, "This job has silicone on it."

The foreman gave a few instructions and the sander went over to the stockroom and came back with a gallon can of some type of fluid and began to coat the entire car with it.

We were aware of some of the difficulties some of the paint shops had encountered before they had learned how to clean a car which had been polished with a silicone polish, so when our painter friend joined us we asked him to tell us his first experience with such a job.

At first he said that he had rather not talk about it. However, he finally loosened up and said that quite a few years ago one of the boys sold a complete refinish job on one of the more expensive makes. From the looks of the car one could tell that the owner was very particular, so they knew that they must do a "first-class job."

Since the original paint wasn't in bad condition, they decided to "dry sand" it very lightly, but they found a hard, glossy surface and the paper wouldn't cut. They tried to "wet sand" it. They found the water ran off like the surface was greasy and that paper would just roll up (Fig. 1). After some experimenting they decided that the surface wasn't "too bad," so they went ahead and masked it and "shot it."

He said you should have seen it when it came out of the oven! It looked like it was covered with a million "fisheyes!"

They again started experimenting, "shot it" again—only to have the same results, more "fisheyes." He said they finally began to call for help and soon learned what they were up against, got the answer and on the *third* try turned out a good job worthy of anyone.

"Since then we have been able to cope with any job we have been called upon to refinish."

We could tell that since that experience he had done some considerable research, so we gradually led him over to the Coke dispenser and from there to his office. After a few minutes he began to tell us about silicone polishes and how to cope with them in the paint shop.

Why do we use silicone? Because when the silicone fluids are properly formulated into automobile polishes and waxes, they impart outstanding desirable properties to such products. The results are protective surfaces that are more easily applied, more lustrous and longer lasting.

Such properties are:

Lubricity. Silicone fluids are incompatible with waxes, therefore they do not act as softeners or plasticizers. Instead, they act as lubricants for the wax particles and allow the randomly deposited wax crystallites to be easily laid down and oriented into a smooth,

Fig. 1—Water will run off and the sandpaper will roll up when attempting to sand a surface which has had silicone applied. You have to be a lot more thorough when preparing a silicone-polished car for refinishing.

continuous film.

The silicone fluids have low surface tensions, which means that they are readily wet, cling to and spread upon finishes, glass and metal surfaces. Thus they contribute ease of rub-out and high gloss to wax compositions that normally lack one or both of these handling properties.

Water repellency. The contact angle of a water drop on a silicone film is considerably greater than 90°. Thus the formation of a continuous film of water is prevented, and corrosion and erosion by rain, washing and humidity are greatly reduced.

Stability. Silicones are inert to chemical and physical attack. They resist heat of 400°F. and cold of 100°F. They resist oxidation, volatilization, discoloration and cracking.

Silicones have an amazing ability to keep paint from sticking. This is a property that most painters learned about the "hard way." Since silicone polishes have been so readily accepted, the chances are that any car will have a silicone polish on it. This being true, then very definite procedures that will allow good repainting *must* be followed.

Cleaning procedures before painting:

The procedure necessary to prepare a silicone-polished car for refinishing is similar to that for surfaces containing conventional wax and oil polishes. It is only necessary to be more thorough in cleaning and to be careful not to spread silicone-bearing dust or other material back upon the area already cleaned.

1.—The first step is a thorough washing with soap or detergent and water.

2.—Thoroughly clean the section with a solvent wash, using any standard solvent, such as turpentine, carbon tetrachloride, toluene, xylene, etc.

3.—Buff and sand.

4.—After sanding, all dust from sanding and buffing should be blown away.

5.—Wipe the area clean with solvent. Use two applications, with clean cloths for each application.

6.—Repaint.

One of the most important things is to prevent transfer of the silicone from the clean rag to the surface. It is suggested that disposable cloths be used for each application of the cleaning solvent.

Frequent changes should be made during the cleaning of a large section, especially during the final wiping just before repainting.

If, in spite of the above procedure, the refinisher still has difficulty in obtaining a smooth, well adhering finish, another possibility exists, that of adding a small amount of a methyl silicone fluid. About .01 to .02% should be added to the reduced paint ready for spraying. This is equivalent to about one small eye dropper full per pint of reduced paint and will solve this problem.

If the procedure of adding sili-

(Continued on page 96)

August: Chevy Wagon Tailgate Service

Hop into these columns next month if you would learn about servicing the tailgate on the Chevrolet station wagon. At the writing wheel will be that veteran, Edward M. Lowery.

1956 PASSENGER-CAR SPECIFICATIONS

MAKE AND MODEL	Std. Wheelbase	ENGINE										WHEEL ALIGNMENT			BRAKES	
		No. Cylinders and Valve Arrangement	Bore and Stroke	Taxable H. P.	Max. Rated H. P. at R. P. M.	Camshaft Drive	Main Bearings	Crankcase Cap. (Qts.)	Air Cleaner	Oil Filter	Vibra. Damper	Cooling System (No Heater) (Qts.)	Caster (Degrees)	Camber (Degrees	Toe-In (In.)	Service	Parking
BUICK Special & Century	122	V8I	4 x 3.20	51.2	220@4400	Ch	5	6	OB	Y	Y	17½	+½ to −1½	+⅞ to −⅝	⅛ to ⅛	H	RW
BUICK Super & Roadmaster	127	V8I	4 x 3.20	51.2	255@4400	Ch	5	6	OB	Y	Y	17½	+½ to −1½	+⅞ to −⅝	⅛ to ⅛	H	RW
CADILLAC 60	133	V8I	4 x 3⅝	51.2	285@3600	Ch	5	5	OB	Y	Y	17½	−½ to −1½ −1 Prf.	−⅝ to +⅝	⅛	H	RW
CADILLAC 62	129	V8I	4 x 3⅝	51.2	285@3600	Ch	5	5	OB	Y	Y	17½	−½ to −1½ −1 Prf.	−⅝ to +⅝	⅛	H	RW
CADILLAC 75	149¾	V8I	4 x 3⅝	51.2	285@3600*	Ch	5	5	OB	Y	Y	17½	−½ to −1½ −1 Prf.	−⅝ to +⅝	⅛	H	RW
CHEVROLET 6	115	6L	3⅜ x 3 15/16	30.4	140@4200	G	4	5	OB	Y	Y	16	+½ to +1½	0 to +1	⅛ to ⅝	H	RW
CHEVROLET 8	115	V8I	3¾ x 3	45	162@4400[1]	Ch	5	4	OB	Y	Y	16	+½ to +1½	0 to +1	⅛ to ⅝	H	RW
CHEVROLET Corvette	102	V8I	3¾ x 3	45	225@5200	Ch	5	5	Y	Y	Y	16	0 to +1	0 to +1	0 to ⅛	H	RW
CHRYSLER Windsor	126	V8I	3.81 x 3.63	46.5	225@4400	Ch	5	4½	OB	Y	Y	24	−2 to 0	Left +½ Right 0	⅛	H	Ps
CHRYSLER New Yorker	126	V8I	3.94 x 3.63	49.7	280@4600	Ch	5	4½	OB	Y	Y	25	−2 to 0	Left +½ Right 0	⅛	H	Ps
CHRYSLER Imperial	133	V8I	3.94 x 3.63	49.7	280@4600[2]	Ch	5	4½	OB	Y	Y	25	−2 to 0	Left +½ Right 0	⅛	H	Ps
CHRYSLER Crown Imperial	149½	V8I	3.94 x 3.63	49.7	280@4600	Ch	5	4½	OB	Y	Y	25	−2 to 0	Left +½ Right 0	⅛	H	Ps
CONTINENTAL	126	V8I	4 x 3.66	51.2	NA	Ch	5	5	OB	Y	Y	23	+¾ to +1¼	0 to +¾	⅝	H	RW
DeSOTO Fire Dome	126	V8I	3.72 x 3.80	44.3	230@4400	Ch	5	4	OB	Y	Y	23	−2 to 0	Left +½ Right 0	⅛	H	Ps
DeSOTO Fire Flite	126	V8I	3.72 x 3.80	44.3	255@4400	Ch	5	4	OB	Y	Y	23	−2 to 0	Left +½ Right 0	⅛	H	Ps
DODGE Coronet 6	120	6L	3.25 x 4.63	25.4	131@3600	Ch	4	5	OB	Y	Y	13	−2 to 0	Left +½ Right 0	⅛	H	Ps
DODGE Coronet 8	120	V8I	3.63 x 3.256	42.2	189@4400	Ch	5	5	OB	Y	N	19	−2 to 0	Left +½ Right 0	⅛	H	Ps
DODGE Royal 8	120	V8I	3.68 x 3.80	42.2	218@4400	Ch	5	5	OB	Y	N	20	−2 to 0	Left +½ Right 0	⅛	H	Ps
FORD 6 Main., Cust., Fair.	115½	6I	3.62 x 3.60	31.54	137@4200	Ch	4	4	OB	Y	Y	14½	0 to +1½	0°8′ to +1°8′	⅛ to ⅛	H	RW
FORD 8 Mainline & Cust.	115½	V8I	3.62 x 3.30	42.5	173@4400	Ch	5	5	OB	Y	Y	19	0 to +1½	0°8′ to +1°8′	⅛ to ⅛	H	RW
FORD 8 Fairlane	115½	V8I	3.75 x 3.30	45	200@4600	Ch	5	5	OB	Y	Y	19	0 to +1½	0°8′ to +1°8′	⅛ to ⅛	H	RW
FORD Thunderbird	102	V8I	3.80 x 3.44	46.21	225@4600	Ch	5	5	OB	Y	Y	21	0°30′ to +1°30′	0°8′ to +1°8′	⅛ to ⅛	H	RW
HUDSON Wasp 6	114½	6L	3 x 4¼	21.6	120@4400	Ch	4	5	OB	Y	Y	13	0 to ½	±¼	⅛ to ⅛	H	RW
HUDSON Hornet 6	121¼	6L	3 15/16 x 4½	34.88	165@3800	Ch	4	7	OB	Y	Y	18½	0 to ½	±¼	⅛ to ⅝	H	RW
HUDSON Hornet V-8	121¼	V8I	4 x 3½	51.2	200@4600	Ch	5	5	OB	Y	Y	27	0 to ½	±¼	⅛ to ⅝	H	RW
LINCOLN	126	V8I	4 x 3.66	51.2	285@4600	Ch	5	5	OB	Y	Y	23.2	0 to +1½	0 to +¾	⅛ to ⅝	H	RW
MERCURY	119	V8I	3.80 x 3.44	46.21	210@4600	Ch	5	5	OB	Y	Y	19	0 to +1½	0 to +¾	⅛ to ⅝	H	RW
NASH Statesman 6	114½	6I	3½ x 4¼	23.44	130@4500	Ch	4	4	OB	Y	Y	11	0 to +½	±¼ 0 Prf.	⅛ to ⅝	H	RW
NASH Ambassador 6	121¼	6I	3½ x 4½	29.4	135@3700	Ch	7	6	OB	Y	Y	17	0 to +½	±¼ 0 Prf.	⅛ to ⅝	H	RW
NASH Ambassador 8	121¼	V8I	4 x 3½	51.2	220@4600	Ch	5	5	OB	Y	Y	27	0 to +½	±¼ 0 Prf.	⅛ to ⅝	H	RW
OLDSMOBILE "88"	122	V8I	3⅞ x 3⅞	48	230@4400	Ch	5	5	OB	Y	Y	20½	0 to −¾	−¼ to +¾	⅛ to ⅛	H	RW
OLDSMOBILE Super "88"	122	V8I	3⅞ x 3⅞	48	240@4400	Ch	5	5	OB	Y	Y	20½	0 to −¾	−¼ to +¾	⅛ to ⅛	H	RW
OLDSMOBILE "98"	126	V8I	3⅞ x 3⅞	48	240@4400	Ch	5	5	OB	Y	Y	20½	0 to −¾	−¼ to +¾	⅛ to ⅛	H	RW
PACKARD Clipper	122	V8I	4 x 3.5	51.2	275@2800	Ch	5	5	OB	Y	Y	26½	−1 to ±½	0 to +¾	0 to ⅛	H	RW
PACKARD Caribbean	127	V8I	4⅛ x 3.5	54.45	310@2800	Ch	5	5	OB	Y	Y	27	−1 to ±½	0 to +¾	0 to ⅛	H	RW
PACKARD	127	V8I	4⅛ x 3.5	54.45	290@2800	Ch	5	5	OB	Y	Y	27	−1 to ±½	0 to +¾	0 to ⅛	H	RW
PLYMOUTH 6	115	6L	3.25 x 4.63	25.4	125@3600	Ch	4	5	OB	Y	Y	13	−2 to 0	+¼ ±⅜	⅛	H	Ps
PLYMOUTH 8	115	V8I	3.75 x 3.13	45	187@4400	Ch	5	5	OB	Y	N	19	−2 to 0	+¼ ±⅜	⅛	H	Ps
PONTIAC Star Chief (Safari)	122	V8I	3.94 x 3.25	49.6	205@4600	Ch	5	5	OB	Y	Y	22.7	−1 ± ½	+½ ± ½	0 to .062	H	RW
PONTIAC Star Chief	124	V8I	3.94 x 3.25	49.6	227@4800	Ch	5	5	OB	Y	Y	22.7	−1 ± ½	+½ ± ½	0 to .062	H	RW
RAMBLER	108	6I	3⅛ x 4¼	23.44	120@4200	Ch	4	4	OB	Y	Y	10	0 to +½	+¼ to −¼	⅛ to ⅛	H	RW
STUDEBAKER Champion, Pelham	116½	6L	3 x 4⅜	21.6	101@4000	G	4	5	OB	Y	Y	11	−1 to −2½	0 to +1	⅛ to ⅛	H	RW
STUDEBAKER Commander, Parkview	116½	V8I	3⅜ x 3¼	40.6	170@4500	G	5	5	OB	Y	Y	17	−1 to −2½	0 to +1	⅛ to ⅛	H	RW
STUDEBAKER Pres., Pinehurst	116½	V8I	3⅜ x 3⅝	40.6	195@4500	G	5	5	OB	Y	Y	17	−1 to −2½	0 to +1	⅛ to ⅛	H	RW
STUDEBAKER Golden Hawk	120½	V8I	4 x 3½	51.2	275@4600	Ch	5	5	OB	Y	Y	25	−1 to −2½	0 to +1	⅛ to ⅛	H	RW

ABBREVIATIONS

*—Eldorado 305@4700.
[1]—170@4400 with Powerglide.
[2]—340@5200 on Chrysler 300B.
G—Gear.
H—Hydraulic.
I—Valve-in-head.
L—L-head.
N—No.
NA—Modified Lincoln engine announced as "adequate."
OB—Oil bath.
Prf.—Preferred.
Ps—Propeller shaft, rear transmission.
RW—Rear wheels.
Y—Yes.

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says J. R. **WHITFIELD**, Vice President, Market Motors, Inc., Ford dealer of Akron, Ohio

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1956 PASSENGER-CAR SPECIFICATIONS

MAKE AND MODEL	TUNE-UP				ELECTRICAL				Bat.	FUEL SYSTEM			VALVES		
	Breaker Gap (.0)	Cam Angle (degrees)	Contact Arm Spring Tension (ozs.)	Spark Plug Gap (.0)	Ignition Timing	Timing Mark Location	Spark Advance Max. Centrif.	Spark Advance Max. Vac.	Cap. & Ter. Grd.	Carb. Mfgr.	Model No.	Fuel Pressure (lbs.)	Tappet Clearance Intake (.0)	Tappet Clearance Exhaust (.0)	Intake Valve Opens b or atdc
BUICK Special & Century	12½–17½	Q	19–23	30–35	5°btc	VD	13½°@1750	10.5°@12"	N62	St. Ca RP	St-WW	6½	Au	Au	25°btc[1]
BUICK Super	12½–17½	Q	19–23	30–35	5°btc	VD	13½°@1750	10.5°@12"	N62	St Ca RP	Ca-WCFB RP-4G	6½	Au	Au	30°btc
BUICK Roadmaster	12½–17½	Q	19–23	30–35	5°btc	VD	13½°@1750	10.5°@12"	N62	St Ca RP	Ca-WCFB RP-4G	6½	Au	Au	30°btc
CADILLAC 60, 62 and 75	16–21	31+1½	19–23	35	5° 400 rpm	VD	9° to 11°@2000	16.5°@17½"	HG N70	Ca RP	WCFB2333S +2434S 7008750-51	5¼ to 6½	Au	Au	39°btc
CHEVROLET 6	16–21	26–33	19–23	33–38	tc	FW	18°@1750	7½°@10"	N53	RP	7009254-55	3½–4½	O	O	10½°btc
CHEVROLET 8	16–21	26–33	19–23	33–38	4°btc	VD	16°@1800[3]	11°@12"	N53	RP	7008387-88	4–5¼	O	O	18°btc[4]
CHEVROLET Corvette	16–21	28–34	19–23	33–38	4°btc	VD	14°@1750	13¾°@15"	N53	Ca	Z	4–5¼	18	18	21½°btc
CHRYSLER Windsor	17	29–32	17–20	35	2°btc	VD	13°to 15°@2020	12°@15"	N60	B&B	BBD2312S	5–6½	Au	Au	5°btc
CHRYSLER New Yorker	17	29–32	17–20	35	4°btc	VD	8½ to 10½°@2400	12½°@17"	N70	Ca	WCFB2314S	5–6½	Au	Au	15°btc
CHRYSLER Imperial & Cr. Imp.	17	NA	17–20	35	4°btc	VD	8½ to 10½°@2400	12½°@17"	N70	Ca	WCFB2314S	5–6½	Au	Au	15°btc
CONTINENTAL	14–16	26–28½	17–20	32–36	5°btc	VD	None	13¼°@1.88"	N65	Ho	60A	4½–5½	Au	Au	18°btc
DeSOTO Fire Dome	17	29–32	17–20	35	8°btc	VD	7°@800	12½°@15"	N60	B&B	BBD2308S	5–6½	Au	Au	4°btc
DeSOTO Fire Flite	17	29–32	17–20	35	4°btc	VD	9½°@2200	13½°@15"	N60	Ca	WCFB2311S	5–6½	Au	Au	15°btc
DODGE Coronet 6	20	39±3	17–20	35	2°btc	VD	9°@1700	9°@14"	N50	St	WW3-124	4–5½	10	10	12°btc
DODGE Coronet 8	17	29–32	17–20	35	4°btc	FW	16°@2150	13½°@15"	N50	St	WW3-135	5–6½	Au	Au	14°btc
DODGE Royal 8 and Cust. Royal	17	29–32	17–20	35	6°btc	FW	17°@2375	12°@15"	N50	St	WW3-138	5–6½	Au	Au	11°btc
FORD 6 Main., Cust., Fair.	24–26	35–38	17–20	32–36	4°btc	VD	None	13½°@6"	N55	Ford	NA	4–5	19	19	24°btc
FORD 8 Main., Cust., Fair.	14–16	26–28½	17–20	32–36	3°btc	VD	None	16½°@4.6"a	N55	Ford	NA	4–5	19	19	12°btc
FORD Thunderbird	14–16	26–28½	17–20	32–36	X	VD	None	13.5°@2.19"	N55	NA	NA	4–5	19	19	12°btc
HUDSON Wasp 6	18–20	36–42	17–20	32	tc	VD	14½°@1500	8¼°@9"	N50	Ca	WAI-2009-SA	4–5	10	15	26°btc
HUDSON Hornet 6	18–20	36–42	17–20	30	tc	FW	9°@2000	5°@10½"	N50	Ca	WDG-2252-S	4–5	Au	Au	33.7°btc
HUDSON Hornet V-8	16	28–34	17–20	35–37	5°btc	VD	14°@1700	12°@12½"	N60	Ca	WDG-2231-S	3¼–5½	Au	Au	14°btc
LINCOLN	14–16	26–28½	17–20	32–36	5°btc	VD	None	13¼°@2000 @1.88"	N65	Ho	ECU-9510D	4½–5½	Au	Au	18°btc
MERCURY	14–16	26–28½	17–20	32–36	3°btc[6]	VD	None	13½°@2.19"	N55	Ho	R-1162-1A	4–5	19	19	12°btc
NASH Statesman 6	16	28–35	19–23	30	tc	VD	17°@1600	5°@11"	N55	Ca	WCD-2350-S	4–5½	12	16	12½°btc
NASH Ambassador 6	18–20	36–42	17–20	30	4°atc	VD	15°@1350	7°@14"	N50	Ca	YH-895-S	4–5½	12	16	12½°btc
NASH Ambassador 8	16	28–34	17–20	35–37	5°btc	VD	14°@1700	12°@12½"	N60	Ca	WDG-2231-S	3½–5½	Au	Au	14°btc
OLDSMOBILE "88"	16	26–33	19–23	30	5°btc	CP	26°@4400	21½°@16"	N62	RP	2GC	4–5	Au	Au	11½°btc
OLDSMOBILE Super "88" & "98"	16	26–33	19–23	30	5°btc	CP	26°@4400	21½°@16"	N62	RP	4GC	4–5	Au	Au	11½°btc
PACKARD Clipper Cust. & Del.	16	27	17–20	33–37	5°btc	VD	15°@2000	12°@12½"	N60	Ca	T	3½–5½	Au	Au	14°btc
PACKARD & Caribbean	16	26–36	19–23	33–37	10°btc	VD	12°@2000	8¾°@14½"	N60	RP	T	3½–5½	Au	Au	14°btc
PLYMOUTH 6	20	29–32	17–20	35	2°btc	VD	9°@1300	9°@14"	N50	B&B	BBS2293S	4–5½	10	10	12°btc
PLYMOUTH 8	17	29–32	17–20	35	4°btc	CP	16°@2100	13½°@15"	N50	B&B	BBD2299S BBD2259S13	5–6½	12	20	14°btc
PONTIAC Star Chief (Safari)	16	26–33	19–23	33–38	5°btc	VD	10°@3600	8°@13½"	N53	RP	7008696	4–5	O	O	M
PONTIAC Star Chief	16	26–33	19–23	33–38	5°btc	VD	10°@3600	8°@13½"	N53	RP	7007960	4–5	O	O	M
RAMBLER	16	28–35	19–23	30	tc	VD	17°@1600	5°@11"	N45	Ca	AS-2349-S	4–5½	12	16	12½"
STUDEBAKER Champion, Pelham	20	38–40	17–20	28–33	2°btc	VD	14°@2800	18°@12"	N50	Ca	WE-2108S	3½–5½	16	16	15°
STUDEBAKER Commander, Parkview	13–18	28–34	19–23	33–38	4°btc	VD	24°@2200	16°@11"	N50	St	WW6-117	3½–5½	23–25	23–25	11°
STUDEBAKER Pres., Pinehurst	13–18	28–34	19–23	33–38	4°btc	VD	24°@2200	16°@11"	N50	St	WW6-117	3½–5½	23–25	23–25	11°
STUDEBAKER Golden Hawk	15	28–34	17–20	33–38	5°btc	VD	20°@1700	20°@11"	N60	Ca	WCFB-2394S	3½–5½	Au	Au	14°

ABBREVIATIONS

[1]—Dynaflow 30°btc.
[2]—Powerglide 14°@1750.
[3]—Powerglide 26½°btc.
a—Fairlane 13½°@2.9°.
atc—After top center.
Au—Automatic.
b—Automatic transmission 6°btc.
B&B—Bal. & Bal.
btc—Before top center.
Ca—Carter.
CP—Crankshaft pulley.
FW—Flywheel.
Ho—Holley.
M—Std. Trans. 22°btc; Auto. Trans. 27°btc.
N—Negative.
NA—Not announced.
Q—Usage not recommended.
RP—Rochester Products.
St—Stromberg.
T—1956 Packards have Carter WCFB-2394-S and Rochester 4 GC-7008610 and 4 GC-700960 (Caribbean model only). Clippers have Carter WGD-2393-S and WCFB-2394-S and Rochester 4 GC-7008610.
tc—Top center.
VD—Vibration damper.
X—Std. and O. D. Trans., 3°btc; Auto. Trans., 6°btc.
Z—WCFB-2419S front, WCFB-2362S rear.

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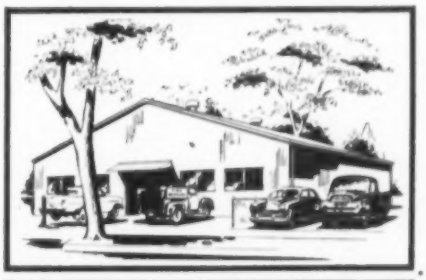
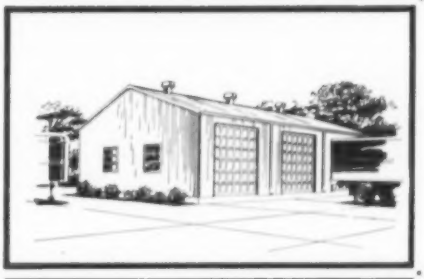


GARAGE

This 60' x 80' insulated building is ideal for general repairs and service. Rear entrance is large enough for tractor-trailer unit to enter.



REPAIR SHOP

This clear-span 40' x 60' building has three bays, each with roll-up door. Overhead crane easily installed. No pillars or obstructions.

TRUCK DEPOT

This 50' x 120' building is designed with canopy and loading platforms on both sides. Office space provided in front. Maximum usable space.

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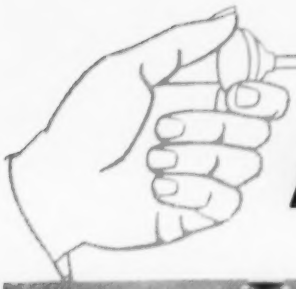
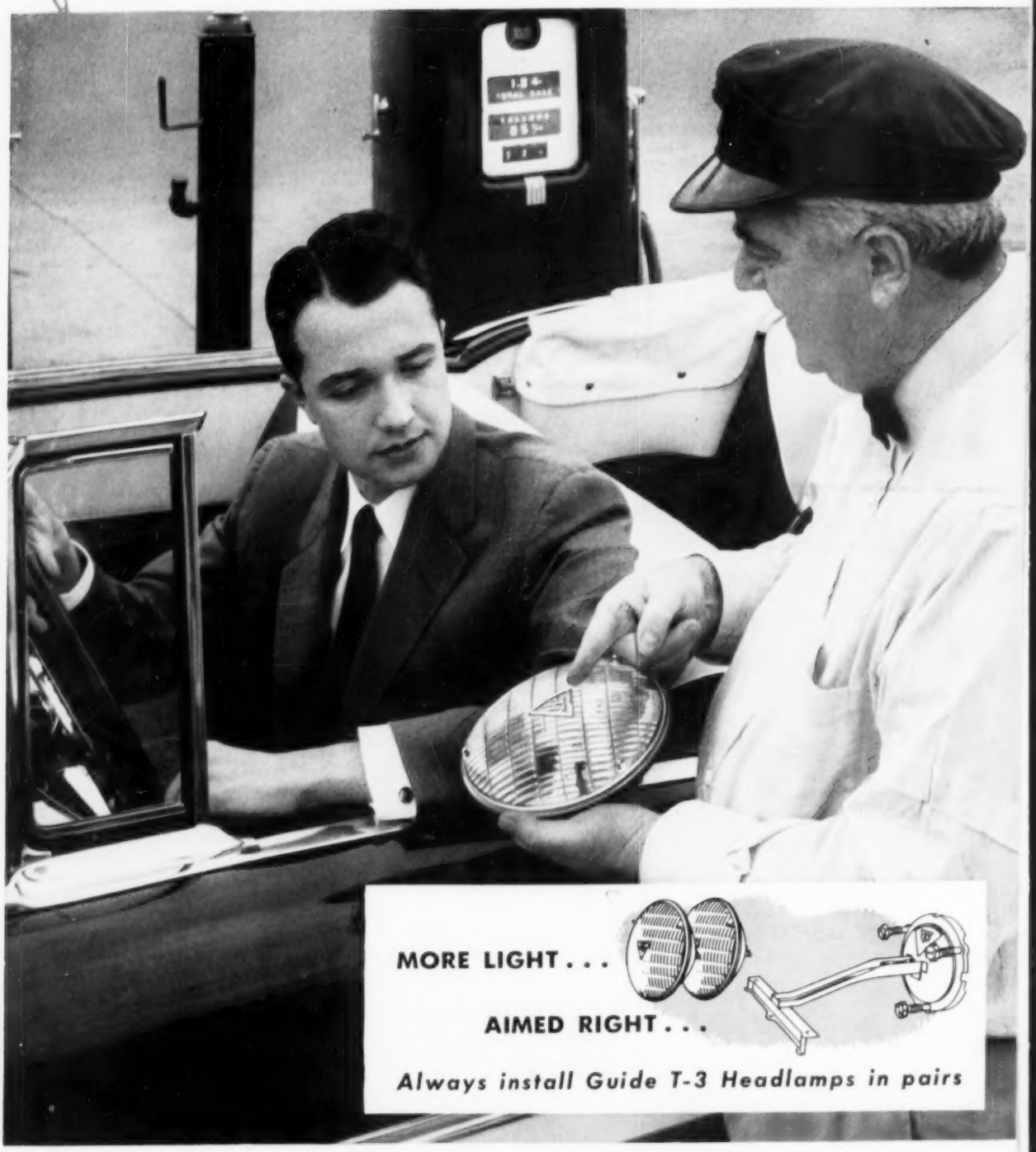


AC's "Pull the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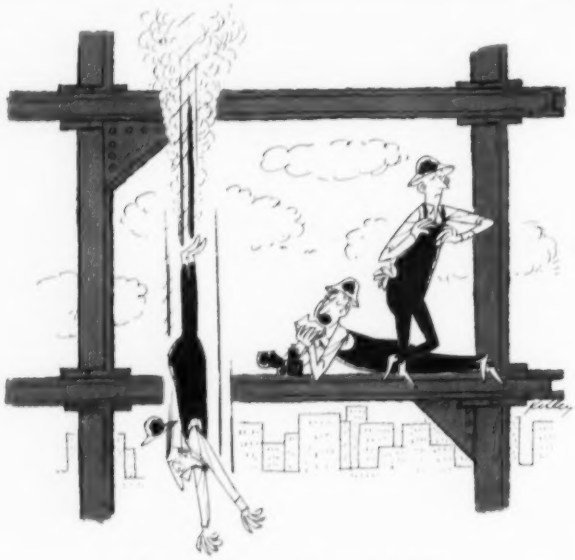
Call your regular AC *supplier*

Attending a recent meeting of the Independent Garage Owners of Ohio for the purpose of starting a new unit at Cleveland were (l. to r.): Charles Boland of Boland Ignition, president of the Cleveland wholesalers association, sponsors of the meeting; Harold Grindle of the Toledo Unit of IGO and secretary-treasurer of the state organization; John M. Geletka, Rieth's Automotive Supply Co.; Ben Dieterich, John A. Dieterich Co., temporary chairman (later elected president); Paul Wilson of the Toledo unit and vice-president of IGOA; Frank Hornyak of the Youngstown unit and president of the state organization; Ollie Rideout, Ray Anderson and Erv Susor of the Toledo unit, and William Good, president of the Canton unit. Art Wenzel was elected vice-president of the new unit, Howard Swartwood, secretary, and George Tomek, treasurer.



"Catch him . . . Shmatch him
It's the Pullman Vac that brings 'em back!"

Want to catch more regular customers? It's those "little extras" you perform . . . like returning his car with the interior spick and span. Makes a man feel like you've done an all-around *thorough* job of servicing.

And the satisfied *service* customer is your best prospect for a trade-in sale, too. Progressive automotive merchants everywhere are increasing their sales in all departments with the help of the Pullman Vacmobile. Keep *your* customers headed to *your* door by providing that "little extra" that counts so much.

OWN A GASOLINE STATION, TOO?

Write for FREE Booklet: "How to Sell More Oil, Oil Filters, Lubrication and TBA Items In Your Service Station."

MAIL THIS COUPON TODAY

Pullman
VACMOBILE

It's the Pullman Vac that brings 'em back!

Pullman Vacuum Cleaner Corp. SA-7
25 Buick Street, Boston 15, Mass.

Rush me your free kit showing me how the Pullman Vacmobile can mean more business for me.

Name
Company
Address
City **Zone** **State**

Baltimore Outlaws False Advertising

A SENTENCE of as much as 12 months and fine not exceeding $500 faces anyone guilty of false advertising under a new ordinance enacted by the Baltimore, Md., City Council.

J. C. "Cab" Darrell, general manager of the Automobile Trade Association of Maryland, commented to his members:

"Automobile advertising has caused considerable criticism by the public. False and misleading advertising has brought our business into disrepute. It is up to every dealer to advertise honestly.

"We want to add that there is a strong probability that a state false advertising law will be enacted by the next legislature."

The ordinance forbids "an advertisement describing such merchandise or commodities, or service, as part of a plan or scheme with the intent not to sell such merchandise, commodities or service so advertised at the price stated thereon, or with the intent not to sell such merchandise, commodities or service so advertised."

TV, newspaper, radio, handbills and other means of advertising would be affected.

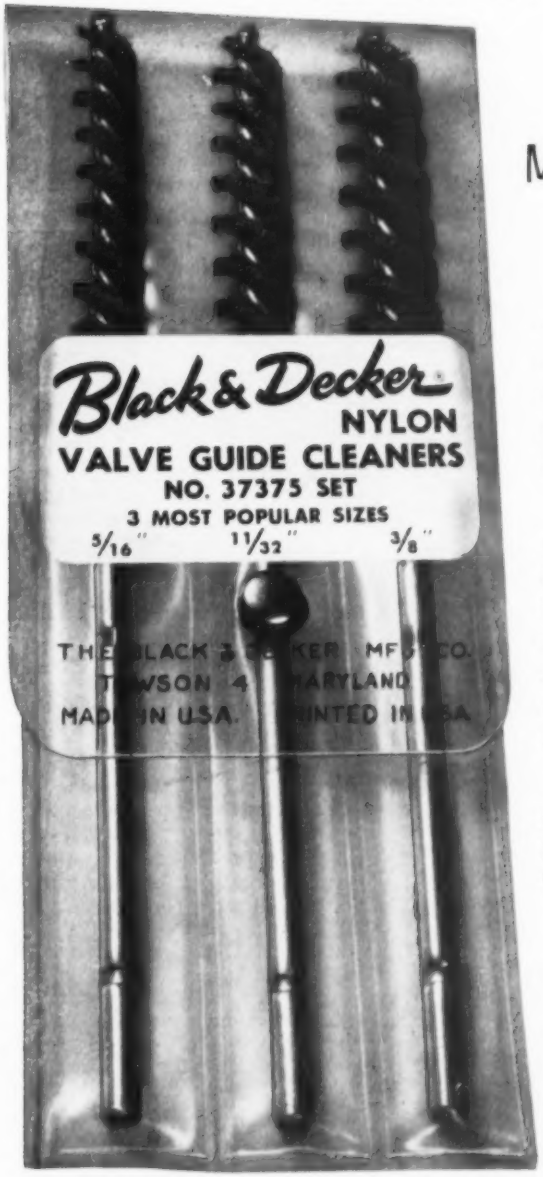
Carter Dies in Walhalla, S. C.

Ralph Caleb Carter, Sr., 74, pioneer automobile dealer and a Ford dealer in Liberty, S. C., for 25 years, died recently at Walhalla, S. C. He had lived in Walhalla since 1905.

BLACK & DECKER Valve Guide Cleaners

resist wear after 50 hours' continuous operation...

in actual "on-the-job" test!



Big Three In Plastic Pouch—you save when you buy the three most popular sizes . . . 5/16", 11/32", and 3/8" . . . in the handy plastic pouch.

Made with Dupont "Tynex" (R) Nylon Bristles!

(won't scratch or load up!)

Tough-bristled Black & Decker Valve Guide Cleaners reduce time lost in cleaning chores. Remove carbon and other deposits faster and more thoroughly. Clean guides with or without oil grooves.

The durable nylon bristles retain their cleaning power over a long period of use. Never mar or scratch guide surfaces. Black & Decker Valve Guide Cleaners can also be used for cleaning screw threads and other hard-to-reach surfaces. 10 sizes are available . . . all designed to speed up your work and save you time.

See your Black & Decker distributor for a free demonstration or write: THE BLACK & DECKER MFG. CO., Dept. 3507, Towson 4, Maryland.

Full 3½ inch brushing length

Look in the Yellow Pages under "Tools-Electric" for Nearest Distributor

Black & Decker®

World's Largest Manufacturer of Portable Electric Tools

"100% DEGUMMED CASTOROIL"

CUTS ENGINE MAINTENANCE AND OPERATING COSTS

MAINTAINS COMPRESSION—POWER

PREVENTIVE MAINTENANCE BY LUBRICATION

IT DOES THE JOB!

THE HUMAN ENGINE

Castor oil is a household word not only known to all of us but is reported to date back to "the time of the Egyptians". It has been known and is still known for its medicinal qualities . . . and for its effectiveness in lubrication—castoroil is known to industry. In recent years it has been applied and used in the manufacture of many products, including among others, the chemical, pharmaceutical, cosmetic, plastic, soap and textile industries. Most of us remember it as a sticky-gummy dose of medicine given to us when we were . . . younger. We also remember that it was never harmful—and always produced excellent results. In other words, it had no ill effects when taken internally because it took only a small proper dose to effectively clean the "human engine". The sticky - gummy substance which most of us objected to has been the principle reason why its use has been limited. But—not so in this atomic age.

Some years ago the late Adam J. Paluszek undertook to research the project of castor oil and its characteristics. His research required many years of untiring experimentation. Others, too, are reported to have made a series of attempts to find out exactly how best to eliminate the sticky-gummy substance of castor oil. Paluszek believed if the gum and other impurities in castor oil could be eliminated that a wider application and use could be made of the beneficial qualities of castor oil. At long last, Paluszek perfected his development and research in 1946 to the point of being able to demonstrate that by the complete distillation of castor oil he could remove all of the gum and impurities without destroying its lubricating values. He found out what made *castor oil* tick. It was then a patent was granted to him by the United States Patent Office . . . No. 2,401,369. We know of no other similar operations.

CASTOROIL

The Paluszek process covering the complete distillation of castoroil, a "live oil", removes the gum and impurities—thus bringing into life latent qualities such as penetration and creep, which are not characteristic of castoroil in its original form, or in other oils in any form . . . to the best of our knowledge. These properties, along with its oiliness and wettiness, make possible for the distillate to impart its beneficial qualities to other products including petro oils and gasoline. While it has various applications and uses, you will realize its effectiveness in blending operations with petroleum oils (so called "dead oils") such as motor oil, cutting oil, gasoline and penetrating solvents. There are no chemical additives or "dope" in "100% Degummed Castoroil". It also acts as a coolant and it enables an engine to maintain its normal compression just as long as "100% Degummed Castoroil" is used with reasonable regularity with petroleum oils and gas.

RESULTS WITH CASTOROIL

By maintaining a clean engine, that is, keeping it free of varnishes, gum binders, carbon, lead and other foreign matter, the compression ratio is normalized thus increasing the life of motor oil, say from 2,000 miles to 4,000 miles or better. Further, such procedure will also give greater mileage per gallon of gas approximately 15-25% depending upon the age and condition of the engine at the time it is treated by the use of products containing "100% Degummed Castoroil". It is obvious — therefore, that engine maintenance costs are reduced to a negligible factor—providing, of course, there are no mechanical defects present.

CASTOROIL PRODUCTS

For all types of engine application there are three products, The Trizol Trio — "Casta Carbonoff", carbon, gum and varnish remover, in the cylinder head, leaves no residue after burning; "Casta Film", in the crank case, to fortify crankcase oil; "Casta Lube" in the fuel or gas tank, an upper cylinder lubricant, leaves no residue after burning. Other Trizol products include special lubricating oils, special cutting oils, penetrating solvents—all made with "100% Degummed Castoroil". The products distributed by Castoroil Products, Inc., are non-toxic and have been sold in approximately 28 states.

REPORTS LABORATORIES—CUSTOMERS

Exhaustive tests of "100% Degummed Castoroil" have been made in the field and by leading laboratories—beginning 1947 such laboratory reports set forth No. 1—the overall engine cleanliness rating was considerably higher—bearing weight loss was approximately ½ less using "Trizol" blended with top grade petroleum products, i.e., motor oil and gasoline . . . indicating favorable oxidation and inhibitive qualities; No. 2—the oxidation tests would indicate that all the gum forming and mucilaginous substance has been completely removed; and No. 3—this product is an oil and contains no substance harmful to an engine or metal. Excerpts from a few of many *Field Reports* from Passenger Car, Fleet and Truck Operators reveal:

A motor car dealer

"To begin with, it is giving us much quieter operating motors as well as complete freedom from valve sticking or hydraulic valve lifter problems. We find that at the end of the recommended 5,000-mile drain period, that this particular oil is still giving excellent lubrication and is clean and of good body, so will of course provide good lubrication for our Fire Dome 8 and Plymouth engines."

A bus company

"Our fleet of 27 buses shows an average improvement . . . increased the oil change period from 2,000 to 4,000 miles . . . reduced oil consumption about 30% . . .

fewer mechanical breakdowns caused by poor lubrication . . . a saving of about 10% in gasoline consumption . . . an increase of gas mileage per gallon from 2.95 to 3.75—approximately 27%."

Diesel engineers report

"Diesel engines using "Casta Lube" show liner wear definitely decreased . . . revolutions greater with same nozzle settings . . . that 'blow by' on heavy pulls stopped or greatly reduced . . . means lower maintenance costs by preventive lubrication with TRIZOL Products.

A taxicab service

"Please accept my order for 1 drum of your Trizol Upper Cylinder Lubricant (Casta Lube). I have been using your products since last July, and find that my fleet of cars are running better and smoother than ever before. I put the Upper Cylinder Lubricant in my gasoline storage tanks every delivery, 3 gallons per 1,000 gallons of gas, one pint Crankcase Additive every oil change, and one pint Motor Carbon-Gum-Varnish Remover (Casta Carbon*off*) every 5,000 mile checkup. I find this program has kept carburetors clean, and cylinder wear to a minimum. In fact, the wear was only Five Thousandths Taper after 100,000 miles in a Plymouth motor.

"With the savings on both gas and oil, plus carburetor wear, longer motor life, I know it cost me nothing to use your products.

"We have sixteen units in our fleet, and hope and wish you continued success to keep it that way."

A distributing company

"Since using Trizol our fleet (11 units) engaged in local delivery service has found its gasoline consumption reduced 19.4% and its oil consumption reduced 70.5%."

INTERNAL COMBUSTION ENGINES

During World War II, Paluszek's "100% Degummed Castoroil" was blended with other oils and gasoline for use in internal combustion engines including diesel engines, tractors, automobile engines, airplane engines, marine engines and stationery engines. It was also used to penetrate sea water corrosion on rusted parts, located down in the bilge of ships and in machine shop operations. Then, as today, it dissolves varnishes, gum and other binders in internal combustion engines which hold carbon, lead, and other foreign matter—thus permitting the engine, when in motion, to blow the carbon, lead and other foreign matter out through the exhaust. This function, of course, the internal combustion engine was originally designed to do, *but* . . . it cannot do so as long as varnishes, gum and other binders accumulate within the engine. It is believed an engine was not and possibly could not be designed to cope with such problems. The close tolerances incorporated in today's high speed engines, the intense heat developed and the hard use a larger percentage of engines are subject to, require lubricating products free of negative characteristics.

CASTOROIL VS. ANY . . . OIL

No matter how much petroleum oils are refined — they still lack sufficient lubricity and contain foreign matter which chemicals do not seem able to eliminate and/or prevent the formation or accumulation within the engine. This condition must mean highly refined petroleum products are thus deficient. They apparently lack "live" vitamins. It is believed these reasons, among others, make "100% Degummed Castoroil" essential to effective lubrication . . . simply, preventive lubrication means longer engine life by maintaining a clean engine at proper compression with resulting lower operation costs. Derivitives of "100% Degummed Castoroil" may be blended with motor oils and gasoline for the purpose of preventing the reaccumulation of varnishes, gum and other binders within the engine—and for the purpose of properly lubricating such engines . . . Remarkable "100% Degummed Castoroil" when blended with other oils and/or gasoline imparts to those products the ability to penetrate hot or cold metal. Thus its penetrating powers, its ability to creep in all directions at the same time, its oiliness and its wettiness permit petroleum products blended with "100% Degummed Castoroil" to adhere to the walls and moving parts of an engine. It is thus indicative of an oil of great strength.

CASTOROIL VS. CHEMICALS

Most large oil companies now advertise the use of chemicals. Chemicals do not add permanent lubricity and are reported to break up the "foreign matter" in the oil or gas while the engine is in motion and holds it in suspension. But, chemicals do not prevent the accumulation of "foreign matter" in an engine. With "100% Degummed Castoroil" lubricity *plus* is added, the "foreign matter" in the engine eliminated; a new accumulation prevented if used with reasonable regularity. We know of no other company that owns or is licensed under a patent which extends to them the "Know How" we enjoy under the Paluszek Patent. In oils and gas "100% Degummed Castoroil" is completely miscible. Other Castoroil Products, all made with castor oil, are miscible in water. We believe our "Know How" is unique and beneficial to all users of oil and gas products.

DEALERS & JOBBERS

Castoroil Products, Inc. sells its products thru established dealers, or in the absence of a dealer being available in your locality, direct to the customer. We would appreciate receiving the name of your Dealer.

SPECIAL OFFER

A customer may obtain for test purposes a limited supply of TRIZOL Products at special prices for test purposes provided the request is made on business stationery with description of type and number of engines and/or equipment to be used in the test. If such engines are diesel engines, so state. If metal is to be machined, specify type of metal and the type of equipment to be used for such machine operations. We are pleased to supply our products for test purposes, at a special test cost price, provided the customer agrees to maintain a specific record of all phases of the test and promptly send us a copy of such records on completion of the test.

Write Today!

CASTOROIL PRODUCTS, INC.

Affiliated with CASTA CHEMICAL CORPORATION

15 WILLIAM STREET • NEW YORK 5, N. Y.

Controlling Money, Men

(Continued from page 56)

various department totals, and adds the total amount to the total for that attendant's cash drawer.

This operation takes only a moment, of course. Very few observers even realize that the sale is mechanically correct, with no chance for error.

Charge transactions are recorded on the register in the same way, and a charge ticket is validated on the printing table of the machine.

Likewise, received - on - account payments and paid-out vouchers are also validated as shown. Register-printed figures are proof that the particular transaction has been properly recorded.

Each person who operates the register has an individual drawer assigned to him. This establishes individual responsibility, and we are able to pinpoint any shortage or overage. Those men who do not have a drawer assigned have change made for them. We consider this one of the strongest features of the system, because it eliminates any argument.

At the end of each day the totals on the register give us the following picture:

Gas sales.
Oil sales.
Labor income.
Accessory income.
Tire and battery sales.
Wash and lubrication.
Confections.

Besides the departmental sales listed above, we have totals of money received on account, money paid out and charge sales. Special counters on the machine keep track of the number of transactions that have taken place in the last three categories and we are able to locate any missing ticket.

A "Sticky" Point

After going through the cash register, all credit transactions go to the bookkeeping machine in the back of the station. Formerly this had been one of the stickiest parts of our whole bookkeeping setup. With 200 regular station accounts and 1,500 fuel oil accounts, we had enough detail work to consume all of our working hours.

The worst part of our accounts-receivable system was that we had no way of controlling the posting of charges and credits. We were simply filing our order tickets alphabetically when they came in. We had no way of knowing the total amount of credit that we had outstanding at any one time, and when a customer paid his bill, it was impossible to tell if a ticket had been lost or misfiled. We would yank all of the customer's tickets we could find out of the file, add them and collect that amount from the customer.

Under the new setup we have a handy ledger card for each customer. Statements fold over these cards, and both customer's and station's record are posted at one time.

The forms are inserted in the bookkeeping machine, and the old balance owing is "picked up." Now the charges and credits are posted. When the totaling key is touched, the machine automatically computes and prints the new balance. The finished form is up-to-date and ready for mailing at the end of the month, and the station's record is an exact duplicate.

A control card that is posted each day gives us a record of total charges outstanding. Believe me, this is a real improvement over the guesswork we were doing for-

KIMCO
BONDED BRAKE SHOES
are bound to build business

AUTOMOTIVE PARTS REBUILDERS DIVISION · NSPA

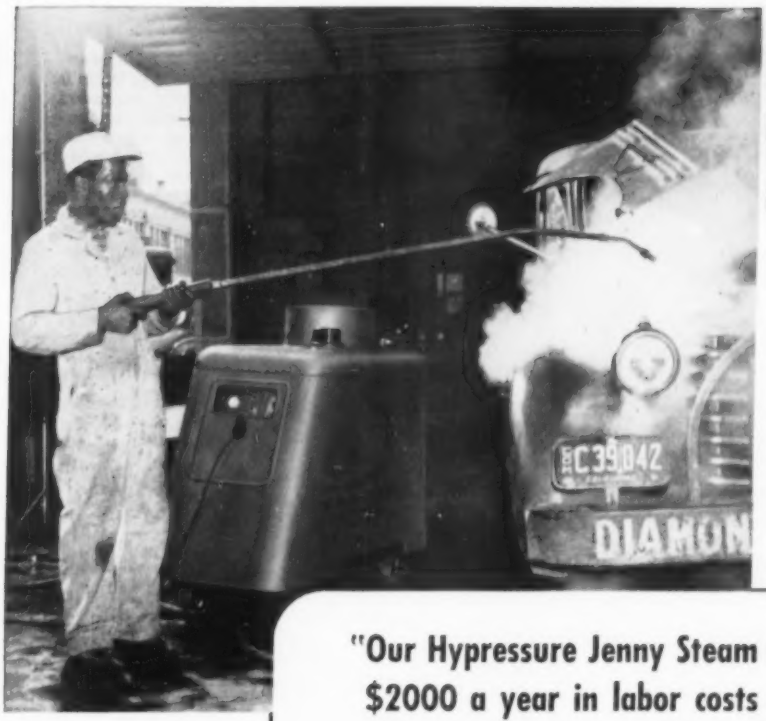
AUTOMOTIVE PARTS REBUILDERS ASSOCIATION
A NATIONAL ORGANIZATION

You'll find Kimco Bonded Brake Shoes a mighty profitable, easy-to-sell line. They're top quality throughout, with super-tough bonded lining for greater mileage, greater safety. Special bonding agent . . . full molded lining . . . and perfect shoe alignment.

Go Kimco! Write today for catalog and price list on Kimco Bonded Brake Shoes and the whole Kimco line of rebuilt auto products.

Generators
Starter Motors
Armatures
Starter Drives
Shock Absorbers
Voltage Regulators
Clutch Pressure Assemblies
Clutch Plates
Bonded Brake Shoes
Master Cylinders
Water Pumps
Fuel Pumps
Distributors
Carburetors

KIMCO
AUTO PRODUCTS, INC.
1520 Texas St. • Memphis 6, Tenn.



"Our Hypressure Jenny Steam Cleaner saves us over $2000 a year in labor costs and greatly improves the quality of our service work . . ."

says
Mr. Fred C. Assalino
Service Superintendent
Engs Motor Truck Co.
San Francisco, California

Engs Motor Truck Company, dealers in new Dodge, Divco and Diamond T trucks, use their Hypressure Jenny Steam Cleaner for two different service functions: to steam clean truck chassis and engines after they have been driven from the manufacturer, and to steam clean engine parts in ordinary service and repair work.

Approximately $1500 of the estimated $2000 total labor savings are in parts cleaning; the balance in engine and chassis cleaning.

Mr. Assalino states that engine and chassis cleaning would be impossible to perform without Jenny. By using Hypressure Jenny to clean engine parts thoroughly, his mechanics are able to locate defects that could easily be overlooked, and thus they are able to greatly improve the quality of their service and repair work. And the fact that Jenny is instantly available and ready to go to work when needed, further speeds operations and reduces shop time.

You too can effect comparable savings by making Hypressure Jenny part of your standard shop equipment. There is a model to suit every requirement. The coupon below will bring you complete information. Mail it today as your first step toward more efficient operation and greater profits.

HYPRESSURE

Jenny

STEAM CLEANER

Mail this coupon TODAY . . .

Without obligation send me full particulars on:

☐ Hypressure JENNY. ☐ Jobber time-payment plan.

Name _____ Title _____

Company _____

Address _____

City _____ State _____

HYPRESSURE JENNY DIVISION

HOMESTEAD VALVE MANUFACTURING COMPANY

P. O. BOX 99 *"Serving Since 1892"* CORAOPOLIS, PA.

These salesmen and branch managers of Motor and Electric Supply Co., Bowling Green, Ky., attended a general sales meeting to announce the addition of a replacement ignition line to supplement the company's original equipment lines. Shown in back row standing are (l. to r.): Bill Kown, "Blue Streak" district manager; Jack Wilhite, sales manager, and Tommy Gill, procurement manager.

•

merly.

For years we delayed the installation of a mechanized bookkeeping machine because we feared that we would have to put on a highly skilled operator. Looking at the machine in operation, I realize this was no reason at all to hesitate. The desk-model bookkeeper is just as simple to operate as a conventional adding machine.

I would make one statement to anyone contemplating a switch system. First, take a hard look at your present methods and determine if any losses *can* occur. If they *can* occur, there is a good chance that they *will* occur. Then go over each part of the system to determine if mechanization will strengthen the system in its weak spots.

If your problems are anywhere near similar to ours, my prediction is that results from machine control will be outstanding. Savings will be immediate and should be substantial enough in the first year to return the original investment. After that, savings are all profit.

HYDRAULIC VALVE TREATMENT

For Top Engine Performance

SAVES ON GAS

SAVES ON OIL

SAVES ON REPAIRS

CORRECTS!

Frees hydraulic valve lifters

Permits valve lifters to operate quietly

Dissolves engine sludge and varnish

Increases power and gas mileage

MAINTAINS!

Keeps valves and lifters free

Cools as it lubricates

Protects engine parts

Increases the life of your car

DO YOUR CUSTOMER A FAVOR! TELL HIM ABOUT THIS EASY Two-Step Treatment — He'll show his appreciation in repeat business!

Order from your jobber, or write to Dept. 167

EMEROL MANUFACTURING CO., INC.

242 WEST 69TH STREET, NEW YORK 23, N. Y.

Buick Names Two Zone Heads

Ralph K. Hibbs, former Buick district manager at Kansas City, Mo., has been appointed Omaha zone manager to succeed Erv R. Tallberg, who was transferred to Cleveland, O., in the same position, according to an announcement by Albert H. Belfie, general sales manager. Prior to his present appointment Hibbs had been Tallberg's assistant. He joined the Buick staff at Kansas City in 1949

Studebaker Trucks Get O'drive

Overdrive transmission is being offered on one-ton V-8 engine trucks by the Studebaker Division of Studebaker-Packard Corp. The five-speed overdrive transmission for the one-ton units, available as factory-installed optional equipment, uses a .798-to-1 gear ratio with mechanical shift.

DE SOTO

Picked to Pace Pikes Peak Race

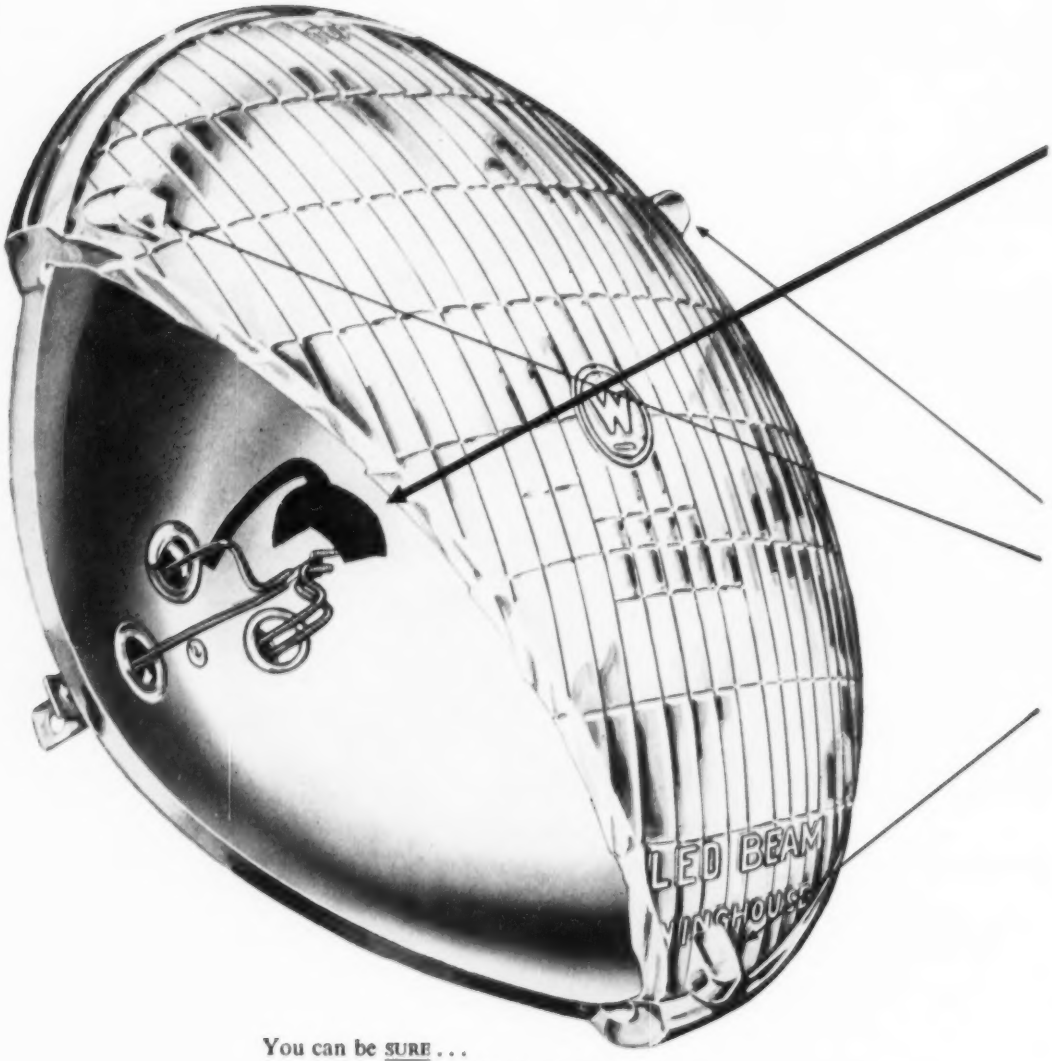
AMERICA'S OUTSTANDING PERFORMANCE AUTOMOBILE

It takes a lot of automobile to set the pace for the rough and rugged Pikes Peak Hill Climb. That's why this beauty's a *natural* to pace the assault on the Peak. Under her hood is the biggest bundle of dynamite in the medium price field. And for maneuvering safely at high speed through the 146 treacherous hairpin curves enroute . . . mister, *nothing* can begin to match De Soto's full-time power steering.

Naturally, we're pushing De Soto's power and performance story to the hilt. And there's a lot to push—a Daytona record for 6-passenger stock cars . . . a Speedway-sizzling performance as pace car for the famed Indianapolis "500" speed classic . . . and now, *pace-setter at Pikes Peak*. It's the kind of sales punch that's paying off for De Soto dealers where it counts *most* . . . on the showroom floor!

ANOTHER REASON WHY IT PAYS TO BE A DE SOTO DEALER

Only new Westinghouse give you BOTH of



You can be SURE . . .
if it's Westinghouse

SELL THE ONLY NEW HEADLAMPS THAT ARE ALL-THE-WAY NEW . . .
New Westinghouse SAFE-T-BEAM Headlamps!

SAFE-T-BEAM™ *headlamps*

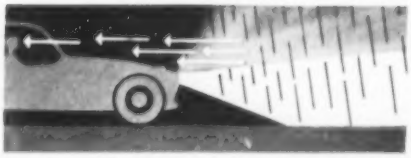
these new selling features!

1 EXCLUSIVE 2-BEAM GLARE SHIELD for full glare protection on both High and Low Beams!

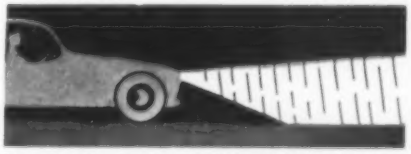
You sell a safety *exclusive* when you sell new Westinghouse SAFE-T-BEAM Headlamps! For only SAFE-T-BEAM Headlamps stop "bounce-back glare" on High Beam as well as on Low Beam. And make no mistake about it . . . this is an *essential* difference. A difference motorists recognize instantly. A difference that makes it easy to sell *two headlamps every time*—instead of the usual single replacement!

Better See-ability on clear nights too!

- Up to 25% more light on both beams!
- Beams up to 80' longer!
- More light on the right!



All other new headlamps: Stray upper light from High Beam strikes fog, rain, snow . . . bounces dangerous, blinding glare back into driver's eyes. Thus all other new headlamps limit the driver to Low Beam just when extra visibility from High Beam is needed most.



New Westinghouse SAFE-T-BEAM Headlamps: Exclusive 2-Beam Glare Shield screens stray upper light from High Beam as well as from Low Beam . . . to eliminate bounce-back glare! *Only* new Westinghouse SAFE-T-BEAM Headlamps let the driver select the beam that best suits road conditions.

2 NEW AIMER BUTTONS for quick, precise mechanical aiming!

Assure accuracy . . . Perfect aiming every time—buttons seat the aimer accurately in relation to the direction of the light beam. Westinghouse SAFE-T-BEAM Headlamps can also be aimed by other aiming machines or screen methods.

Save time . . . It takes only a few minutes to install and aim Westinghouse SAFE-T-BEAM Headlamps—can be done in broad daylight!

Save money . . . A screwdriver and any of the low-cost mechanical aimers on the market today are all that's needed!

Save space . . . The job requires only a few feet in front of the car—won't interfere with other shop work. Can be done indoors or out.

All three types of new Westinghouse SAFE-T-BEAM Headlamps—the 5040S (6-volt), 5400S (12-volt) and the 5440S (heavy-duty truck)—have the 2-Beam Glare Shield and the Aimer Buttons.

WATCH WESTINGHOUSE

*WHERE **BIG** THINGS ARE HAPPENING FOR **YOU!***

Center Plane Brake

(Continued from page 65)

lockwashers and bolts. Snug down but do not tighten. Install support plate mounting lockwashers and nuts. Tighten to 35 foot pounds. Now tighten the cylinder mounting bolts to 20 foot pounds. *Note:* Check rear wheel bearing adjustment and adjust, if necessary.

2.—Slide brake shoes into position between support plates. Be sure ends of cylinder push rods engage toe ends of shoes properly. Install return springs, using tapered end of tool C-3462. Be sure the long end of return spring is hooked into web of shoes to prevent coil from contacting shoes.

3.—Check the tension of brake shoe return springs. Spring tension can be checked by hooking a scale at the toe of the shoe and pulling in direction of piston movement. Scale should read from 35 to 45 pounds at the instant the toe of the brake shoe moves. *Note:* A dial indicator may be used to indicate the movement.

4.—Install brake shoe guides and retainers, with the lip of guide in hole of support plate. Seal the rear wheel cylinder.

5.—Back off adjusting cams, then install the drum, wheel and tire.

Adjust the brake as follows:

Whenever brakes have been relined or new shoes installed, apply the brakes momentarily. This action allows the shoes to center in the drum as an aid to final adjustment.

Front brake adjustment:

Using tool C-3512, rotate the adjusting cams on both front brakes in the direction of forward wheel rotation until the shoe lining is solid against the drum and the wheel is locked. Now turn the adjusting cams slowly in the opposite direction (each cam a little at a time) until no drag is felt in this procedure.

Adjusting the Rear Brake

Rear brake adjustment:

Using tool C-3512, turn the front brake adjusting cams of the rear wheels in the direction of *forward* rotation and the rear brake adjusting cams of the rear wheels in the direction of *reverse* wheel rotation until the shoe linings are solid against the drums and wheels are locked. Now turn the brake adjusting cams in the opposite direction (each cam a little at a time) until no drag is felt.

Note: After adjusting as above, apply brake pedal firmly and recheck to see that all wheels turn freely.

Grinding brake linings:

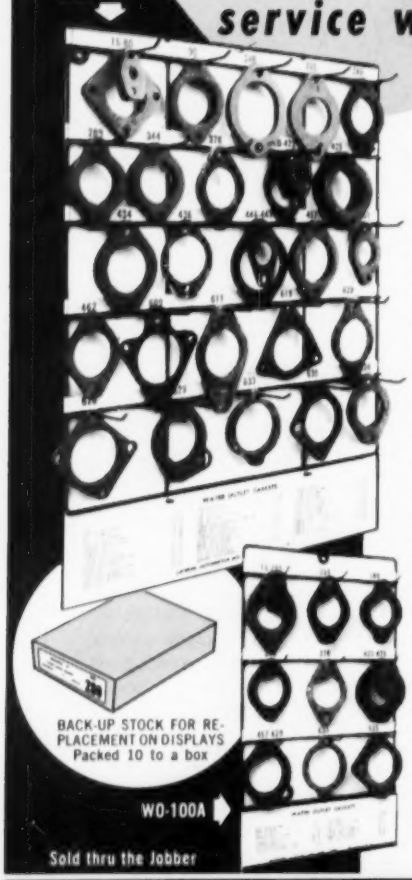
1.—Measure the drum inside diameter with an accurate gauge. Drum diameter service limit should not exceed .004" out of round. If drum diameter is in excess of .004", the drum should be refaced. Do not remove more than .030" of metal during refacing operation.

The drum diameter measurement is then transferred to the grinder and the lining ground to the required clearance of .010" to .024" under drum diameter.

Reconditioning wheel cylinders:

Wheel cylinder pistons that are badly scored or corroded should be replaced. Old piston cups should be discarded when reconditioning wheel cylinders. Cylinder walls that have light scratches or corrosion can usually be cleaned with crocus cloth. However, cylinders having scratches or scoring can be honed, providing scratches can be cleaned up.

The NEW Supreme
WATER OUTLET GASKET
ASSORTMENT RACKS
makes cooling system service work a cinch!



Sold thru the Jobber

Here's the WO-300A Assortment — all brand new with 200 different gaskets in 28 different numbers!

It provides complete coverage. There's a place for every gasket to keep every gasket in its place. No more hunting for those eleusive sizes — no more gaskets hiding all over the shop. The right gasket is right at your fingertips because this metal rack comes with numbered hooks for lightning-fast identification. Each hook accommodates up to 100 gaskets. The display rack is made of metal — beautifully lacquered in blue — a permanent display that you can hang within easy reach. The rack also features a permanent car guide which tells you at a glance the car, model, year AND THE GASKET THAT FITS!

Here's the WO-100A Assortment — all brand new with 100 different gaskets in 12 different numbers! The rack includes all sizes for all GM cars (except Cadillac), all Chrysler Product cars as well as Ford and Mercury.

Metal hooks hold up to 100 gaskets per hook. The display rack is made of metal — beautifully lacquered in blue — a permanent display that you can hang within easy reach. The rack also features a permanent car guide which corresponds to the numbered hooks. It tells at a glance the car, model, year AND THE GASKET THAT FITS!

BOTH RACKS ARE INDIVIDUALLY CARTONED

Write for Catalog

SUPREME AUTOMOTIVE MFG. CORP. 683 Prospect Place, Brooklyn 16, N. Y.

GM's Free Piston Engine

(Continued from page 59)

declared.

First, the turbine can be made of non-critical materials at moderate cost, as contrasted with automotive gas turbine engines in GM's experimental Firebird II and Turbocruiser.

Another advantage is the ease with which the free piston gasifier can be connected with the power turbine.

"The low temperature gas can be readily piped from one part of the vehicle to another," the speaker said. "This gives the designer an independence of location of the gasifier and turbine. The gasifier can be placed where it is most convenient for space and weight consideration and the turbine can be located where the power is to be applied to the wheels.

Advantages over Gas or Diesel

"The advantage over a gasoline or diesel engine is obvious, because it is necessary to have a propeller shaft and other mechanical connection between the engine itself and the final drive," he said.

6.—Underwood explained that analysis and design of XP-500 leads to the conclusion that a free piston-turbine combination can approach the power-to-weight ratio of today's highly developed gasoline engines. He indicated the possibility of 3 to 5 pounds per horsepower.

7.—Throttle response in any automobile is highly desirable, and the free piston gasifier makes its power available quickly to the rear wheels. The gasifier rapidly increases its gas output to the turbine, whereas in a gasoline or diesel engine a period of time is needed for rotating parts to "rev up" to speed.

Underwood said deceleration or slowing down is just as rapid because the pistons stop at the end of each stroke, and there is no "flywheel effect" in any element of the gasifier.

8.—The speaker also discussed the possibility of an afterburner in XP-500's power package. This could be placed between the gasifier and turbine, and additional fuel could be burned to supply more power to the turbine, making additional power available instantaneously.

9.—The free piston engine offers engineers a basic "building block" for a whole family of engines with virtually the same components, starting with a single-cylinder design. Next would be a Siamesed or two-cylinder design, he said.

"Higher horsepower would be developed by two or more . . . units feeding into a common header to the power turbine," he said. "In this manner all engines would be serviceable from one set of parts, especially those parts that would need replacement."

"This feature," Underwood declared, "brings the free piston engine into the situation enjoyed by gasoline and diesel engines where the same components can be used for several engines. . . . Producing such a family of engines is attractive because it can be done on tools similar to present crankshaft engines."

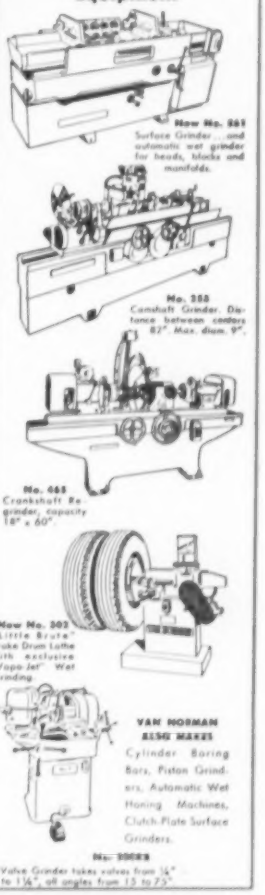
It costs America's oil companies half a billion dollars to improve the quality of gasoline by one octane number. Yet the average octane rating has risen from 74 to 84 in the past 26 years in this country.

Here's the MAGNET that pulls business into your shop

"YOUR PROFITS INCREASE AS YOUR SHOP SERVICE IMPROVES" . . . so says a top midwest jobber, speaking of his Van Normanized machine shop. *And he's so right* . . . for a completely equipped, well managed and cleanly kept shop is the most powerful attraction any jobber can have to help him sell service and parts.

So look over *your* shop now, with an eye to future profits. Then ask your Van Norman District Manager to help you make a complete Machine Shop Analysis . . . and to show you how easily and economically you can give your business one of the top Van Normanized shops in your territory. Call him today, or write Van Norman Automotive Equipment Co., Springfield 7, Mass.

World's Most Complete Line of Heavy-Duty Automotive Service Equipment



The Best Equipped Shop is the Van Normanized Shop

Readers are invited to contribute to— SHOP TALK

A column of informal comments about the automotive trade and its problems.

FRONT-END TROUBLES

Nahunta, Ga.

Gentlemen:

My problem is a 1953 Buick four-door sedan, Series 40. The front-end is out of balance and out of line. I can have new tires put on, balanced and lined up and it will still vibrate after 60 miles per hour. Or over a rough place in the road, the steering wheel shakes as if it has a shimmy.

This car has been like this ever since it was new. I have had it worked on from Waycross, Ga., to Ft. Lauderdale, Fla., and so far no one has come up with the answer or cure. The tires do not wear as if out of balance or out of line but every time I take the car in to have the front-end checked, they line it up, cross tires and balance them.

I have spent so much on this car that now I tell them if they do not fix it I will not pay for the work. I am now seeking your help in the hope that you may be able to give me some satisfaction.

J. D. ORSER,
Brantley Motor Co.

It would seem to us that someone has "missed a cog" in checking for the cause of your difficulty.

We suggest that you have some reliable repair shop check the front-end for:

1.—Correct alignment.
2.—Wheel balance.
3.—Bent wheel.
4.—Out-of-round wheel or tires.
5.—Weak shock absorbers.
6.—Excessive play in the steering and connections.

Our investigation failed to find the condition which you are experiencing chronic with this model car. Therefore, we feel confident that one of the above items is the cause of your trouble.

CORE ENCORE

Kingsport, Tenn

Dear Sir:

I read with interest your reader's letter regarding "This Exchange

Address any comments to: Southern Automotive Journal, 806 Peachtree St., N.E., Atlanta 8, Ga.

BEFORE YOU INVEST IN ANY AUTOMOTIVE LIFT IT WILL PAY YOU TO WRITE FOR THIS FREE JOYCE MECHANIC'S LIFT FOLDER!

If you're planning a new service shop layout, or the expansion or modernization of existing facilities, take advantage of this expertly compiled Joyce Mechanic's Lift folder today! As a result of Joyce's research and development, you can now obtain prepurchased research covering a method of selecting the proper lift for every type of service, floor plans and scaled architect's drawings. This folder is a wealth of money-saving material developed to enable dealers to select the right combinations of lifts for the right jobs, for the least amount of money and with the least confusion in planning service.

CAR FACTORY APPROVED: YOU CAN SELECT YOUR LIFT WITH CONFIDENCE AFTER YOU'VE READ JOYCE'S FACTORY-APPROVED MECHANIC'S LIFT FOLDER . . . WRITE FOR BULLETIN 1391L TODAY . . . NO OBLIGATION!

JOYCE LIFTS

THE JOYCE-CRIDLAND COMPANY
Designers and Builders of Lifting Equipment Since 1873
DAYTON 3, OHIO, U.S.A.

Where performance counts most

GIVE THEM Fm QUALITY!

Car owners today expect top performance—they won't take less! So, on every overhaul—for long-run economy and performance—*replace the bearings!* Replace with Federal-Mogul, the bearings of *known and preferred* quality. Surveys prove they are first choice for replacement by car, truck and tractor owners.

Give your customers the *best*—give them Fm quality!

FEDERAL-MOGUL SERVICE

Division of Federal-Mogul-Bower Bearings, Inc.

RESEARCH • DESIGN • METALLURGY • PRECISION MANUFACTURING • SERVICE

Business?" (page 114, May issue).

I woke up about three years ago to the facts he mentioned, plus the fact that we were losing four to six thousand dollars a year in core charges because the old cores were not being turned in. We have many very good accounts that do not want the core charges added and credits issued upon their return, thus complicating their bookkeeping. With the best of intentions they promise to send in the old unit or core when repair is made, but you just don't get them back.

At the beginning of 1955, we started a record and check system to avoid this loss and have been very successful. Where customers do not want the charge shown on their invoice we make a record of it and if the unit or old core is not returned in a few days, our salesman picks it up on his next visit. This way we keep the customer's good-will and at the same time do not have to sustain a large loss each year in old core charges.

If any of your readers are interested, we will be glad to furnish sample forms and an explanation of just how we handle the matter.

J. MATTHEW "HOT SHOT" NELSON,
Holston Auto Supply Co.,
321 West Market St.

THEY LEFT CRYING

Burglars who tried to crack the main safe at the Chip Barwick Chevrolet Co., Memphis, Tenn., did not get money. They left in tears!

The thieves took an undetermined amount of change from four vending machines, pried open a small wall safe and scattered papers over the floor. But when they knocked the dial off the large safe, a tear gas device was set off.

Investigators said indications were that the intruders left in a hurry.

A RECORD MAYBE

Tom Clark, a Richmond, Va., sports car racer who failed to lower the coast-to-coast speed record recently, says he is "planning another trip soon."

"Nobody," he said, "has ever tried for the coast-to-coast-and-back record, so I might as well."

A mechanic's helper, who failed to replace a metal plate on the cooling system of his rear-end engine, was blamed instead of Memorial Day traffic for Clark's failure to break the 60 hours and 50 minutes record set in 1933.

Driving a 1955 Renault, Clark left Los Angeles one Monday with his "co-pilot," George Graves, also of Richmond, and arrived in New York on Wednesday, covering the 2,815 miles in 65 hours and 14 minutes.

He now claims the west-to-east record since nobody has ever tried for it, saying, "It's a little more difficult that way because in the opposite direction the last 40 miles in Arizona is down hill. We had to go up hill."

He also claims the class record for cars with a 750-cc sized engine

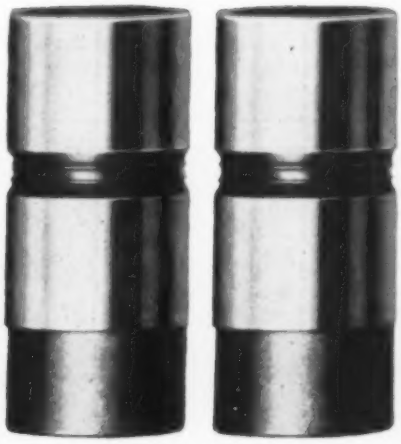
FOR SAFETY'S SAKE

Detroit, Mich.

Gentlemen:

Congratulations to you and to your magazine for earning the National Safety Council's Public Interest Award for your contributions to public safety.

More than 125 million



hydraulic valve lifters in use...

...get your share of this vast replacement market with

"NO-LASH"

HYDRAULIC VALVE LIFTERS

The replacement market for hydraulic valve lifters gets bigger every day as tens of thousands of new cars equipped with them roll off the assembly lines. And over half of these new cars have "No-Lash" hydraulic valve lifters as original equipment.

Today, over 125 million hydraulic valve lifters are in daily operation in cars and trucks. They must operate efficiently and quietly or be replaced. You can service this vast market with one line of hydraulic valve lifters — "No-Lash" — precision-built. The nationally advertised, pre-sold "No-Lash" line covers 95% of the total replacement market. And for customer satisfaction, replace them in sets.

Get set now to handle this profitable replacement market with the proven line of hydraulic valve lifters — "No-Lash."

AVAILABLE PROMPTLY FROM YOUR AC SUPPLIER

Manufactured by Diesel Equipment Division
Distributed by AC SPARK PLUG
THE ELECTRONICS DIVISION OF GENERAL MOTORS

GM GENERAL MOTORS

I'm sure you feel as we do that any way that we can serve in making the American people more clearly aware of some of the cardinal rules of safety and helping to call attention to the importance of being safety-conscious is truly in the public interest.

We at Dodge are convinced that the National Safety Council is performing a real service in acknowledging your efforts, and those of others, with its Public Interest Awards. Through the awards themselves, the council is encouraging more contributions such as yours.

I'm sure it is a real satisfaction to you to receive the award. Congratulations again, and best wishes.

W. C. NEWBERG,
President,
Dodge Division,
Chrysler Corp.

Thanks, President Newberg. The publishers are happy to have received this award (see page 53) and the certificate, too, from the Inter-Industry Highway Safety Committee.

Your Working Partner for Profit

Your Niehoff partnership has a double profit advantage. First, warranteed quality Niehoff ignition parts, designed for easy installation. Second, a 5-point merchandising plan to move them from your shelves: 1. A simplified parts catalog. 2. Part packages keyed to your catalog. 3. Attractive steel merchandise cabinets. 4. Automatic inventory system to keep you from being over or under stocked. 5. Regular factory mailings of Tune-Up Charts, signs and current price and service information. This time-tested 5 point Niehoff Sales-by-System plan can be a profit maker for you as it has for so many other Niehoff dealers. Ask your jobber or write today.

Danny Dollar Says... Stock • Sell • Install
C. E. NIEHOFF & CO.
Warranteed IGNITION PARTS
4925 LAWRENCE AVE., CHICAGO, ILL.
Warehouses: 250 W. 54th St., New York 19, N. Y. • 1800 Fairmont Ave., Philadelphia, Pa. • 254 Brighton Ave., Boston 34, Mass. 2715 Main Street, Dallas, Texas.
Branches: 1230 W. Olympic Blvd., Los Angeles, 15, Calif.

A QUICK CHANGE

When thieves stole a station wagon from a Charleston, W. Va., used-car lot, they also took ignition keys to 25 cars.

They will do them no good, however. Company officials had the locks changed on all 25 cars.

WHAT ADDITIVE?

Aberdeen, Md.

Dear Sir:

I am interested in the brand of additive Mr. Parker is using in his tune-up jobs as discussed in the article (page 81) in the May issue.

FLORENTINO A. PAUNIL,
Paunil's Atlantic Service

Glad to give you this information.

"MEASURING" FISH

R. E. Kirkland, Sr., president of the North Carolina Automotive Wholesalers Association, can be counted on normally for the truth, but he might have been stretching things a speck (or a peck) when he wrote friends this report last month:

"Went on that fishing trip this week and three of us caught over three pecks—so many we didn't count them, just measured them."

At least that's what the president of Barnes Motor & Parts Co., Wilson, N. C., wrote.

Anybody else want to "report" on a fishing trip's success?

A SALTY ONE

A total of 40,000 pounds of salt was spread over the Memphis-Ark. (Tenn.) Speedway for the 250-mile NASCAR Grand National Championship race June 10.

While the crew was laying the salt on the one-and-one-half-mile oval, reportedly the longest stock car track in the world, other workmen were replacing 175′ of steel guard rail, one-half inch thick, on the south turn, torn down when Billy Carden ripped into it last October.

ARSON REWARD

A $300 reward for information leading to the arrest and conviction of a person or persons for wilful destruction of an automobile or

Go! Man, Go!

Go after quicker turnover, higher profits with the Southland line.

You get a top quality complete line of batteries at prices your toughest competitors can't touch!

You get quick delivery directly to your door by factory trucks. You get money-saving service that can't be matched!

Go! Man, Go! Go to your telephone now, and call for details.

Southland Batteries

Manufactured by the South's Largest Independent Battery Manufacturer . . . Established 1933

Southland Battery Company, 2040 Amelia, Dallas, Texas

Telephone LAkeside-5108

truck by fire has been offered by the North Carolina Automobile Dealers Association.

Reward notices are circulated among business establishments with the request that they be posted in prominent locations. Cardboard placards are furnished upon request.

All sheriffs and chiefs of police in the state have been alerted and their support solicited through communications from the executive office of the association. An explanation of the program's purpose—an eventual reduction in over-all motor vehicle insurance rates which are partly based on loss experience—accompanies the outline of the program.

Members of the committee for the arson reward program are C. G. Conn, Jr., Conn-Gower Pontiac, Raleigh, chairman; R. G. Stovall, Tar Heel Chevrolet Co., Roxboro; T. I. Wagner, Wagner-Waldrop, Inc., Greenville; J. H. McCollum, McCollum Motors, Inc., Fairmont, and Harry D. Kellett, Harry D Kellett, Inc., Greensboro.

LINING GUARANTEED

In the approximately four years that Bear Safety Service at Selma, Ala., has been extending the guarantee you see here, nary a

BEAR SAFETY SERVICE
1124 Broad St.
SELMA, ALABAMA

We have installed the FINEST BONDED LINING MADE on your car and guarantee this lining the life of the car. We will replace this lining if worn out at no charge. Only cost involved will be labor for installation.

Customer's Name — Year and Make of Car

customer has been back, according to Owner Fred Cruikshank.

On his policies of merchandising brake lining, he commented:

"We start with our best and don't try selling up, which I think is a mistake. We can point out that they can get the best for less than a dollar a wheel."

This shop has been doing rather well in balancing also, considering that last year it balanced one wheel for every car registered in Selma.

Cruikshank said:

"My background as service manager and adjuster has stood me well in customer relations. Handling the disgruntled customer is one of the most difficult things in any business, and we avoid most of it by road-testing with the customer to be sure he is pleased, and if he is not, we do not charge him for our services."

WHAT KIND OF SPRAYER?

Payneville, Ky.

Gentlemen:

We read the article "Sell Engine Protection" in your June issue and noticed on page 56 a picture of a service station attendant using a spray gun to clean an engine.

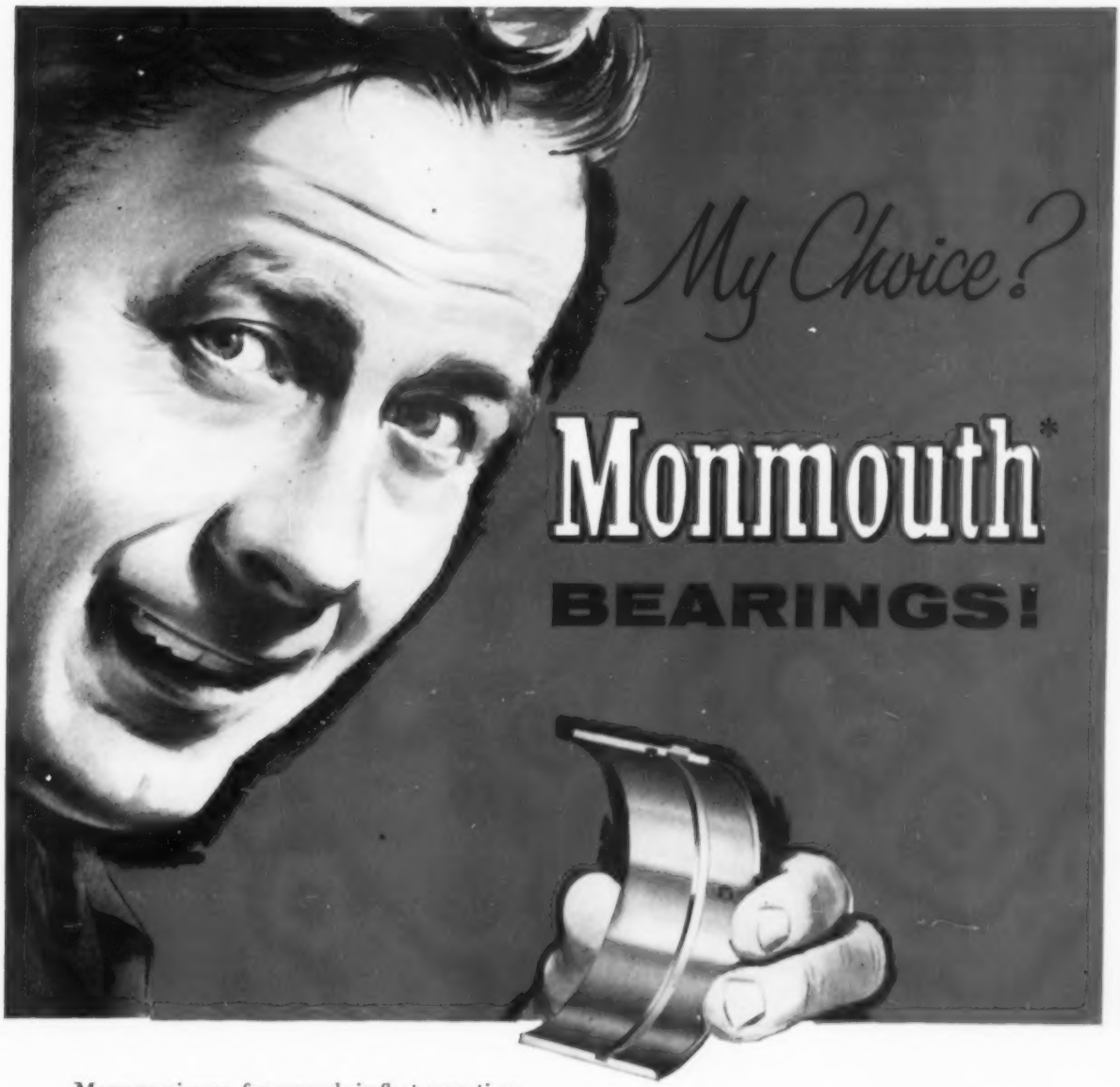
We would like to know who makes this sprayer. If you can tell us where we can buy one, it will be most helpful.

J. Cecil Smith,
Smith Auto & Sport Supply

We are glad to ask the Texan who purchased this spray gun to pass this information on to you.

Kentuckian Heads GM Parade

Bruce G. Overbey, a native of Murray, Ky., has been appointed director of the General Motors Parade of Progress.



Many repairmen, for example in fleet operations, have a chance to keep tabs on engine behavior and maintenance needs over an extended time. And those men who *know* Monmouth bearings, know by experience that they can't be topped today for easy, precision fit . . . and, most important, for prolonged performance!

You can put the satisfaction and performance of Monmouth Micro* or Clevite* 77 bearings into virtually any car, truck, bus or tractor that needs bearing replacement. It's the most complete line of active bearings. Available from N.A.P.A. jobbers coast to coast.

*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

Monmouth

TRADE MARK

ENGINE BEARINGS

Clevite Service
The Cleveland Graphite Bronze Co.
Division of Clevite Corporation, Cleveland, Ohio, U. S. A.

NAPA Assurance of Quality

Your NAPA Jobber is a Good Man to Know!

Dear Bill,

Sometimes I think our service meetings are as important as actual service experience in keeping our mechanics on top of the new developments in the industry. Of course the success of our meetings has a lot to do with the many years they have been regularly held, so that each man watches for valuable incidents to contribute from either his personal experience, observation, or something he has read.

Sometimes the contribution to the discussional period comes in the form of a trick question to see if the other men have heard of the item before, and then they may lead into learning new things as they develop during discussion.

Like the time someone made the discovery that due to the positioning of the cylinder banks on a V-8 Pontiac engine, a rather unorthodox situation was presented.

His question for the evening was, "On what engine is #2 cylinder ahead of #1?"

No one could answer the question, since it was a new job at that time, and none of our men had tuned one.

But this got the ball rolling and we all learned something about firing order and cylinder numbering on the newer V-8's which was not only interesting but likely to save us time and money in some future job.

The firing order of engines in the same family may differ as in the case of Chev, Pontiac and Cad, with 1-8-4-3-6-5-7-2, and the Buick with 1-2-7-8-4-5-6-3, or the Olds with 1-8-7-3-6-5-4-2. The Chrysler engines have the same order as the Chev and the Ford jobs, 1-5-4-8-6-3-7-2.

But the numbering of the cylinders varies too, so the mechanic dare not forget that all GM engines except Buick number the first cylinder on the front of the left bank and criss-cross back and forth so #2 is at front of right, #3 is second on left bank, #4 second on right bank, and so on.

Buick, however, has #1 at front of the right bank and then uses the same sequence as the others in the family by having the odd on one bank and even numbers on the opposite bank.

Chrysler uses the same sequence as the first-mentioned GM jobs, while the Ford starts off with #1 on the right side, as does Buick, but Ford cylinders are numbered #1, 2 and 3 down the same bank,

• MODEL 525 "DRUM MASTER" handles ALL passenger cars and light trucks...at a price even the smallest shop can pay!

MODELS 505 "BRAKE PERFECTOR" AND 530 "WORKHORSE" lathes, popular in the medium-price field, have all the high-price FEATURES—including MICRO-FEED.

MODEL SDH HEAVY DUTY world's LARGEST CAPACITY. Carriage travel 16", max. diam. 40", work load 1600 lbs.

LEMPCO PRODUCTS, INC., Bedford, Ohio
Gentlemen: Please send full information and prices on items checked at right.

☐ 525 ☐ 505

NAME _____

ADDRESS _____

CITY _____ STATE _____

☐ 530 ☐ SDH

LEMPCO
PRODUCTS, INC.
BEDFORD, OHIO
Builders of Drum Lathes for 35 Years

Rust Master "Pict-O-Poem"

RADIATOR BOILING . . .

When customers drive in with steaming radiators . . .

STOP TOILING . . .

- No Draining
- No Flushing
- No Waiting

There's no need to drain and flush to clean out rust and scale and to improve water circulation . . .

JUST POUR . . .

Rust Master dissolves all rust and scale in the entire cooling system. Just pour Guaranteed Rust Master in the radiator — rust proofs for a whole year . . .

PROFITS SOAR!

It's smart to stock all Rust Master products for More Satisfied Customers — More Profits!

RUST MASTER — LEAK MASTER — SLUDG-MASTER — CARB MASTER — PARTS MASTER

GET IT FROM YOUR JOBBER

LARS WILL SAVE YOUR CAR

Ask for Trend HIRSIG To the Smart

EDWARDS DENNIS

PRODUCTS WORK WHILE YOU RIDE!

Rust Master
CHEMICAL CORP.
MFG. CHEM-1571
50-56 CREIGHTON ST., CAMBRIDGE 40, MASS.
The silent partners of motor efficiency

while the other bank is numbered 5, 6, 7 and 8.

I noticed that our parts runner's contribution influenced the boys to handle crankshafts with a little more care, after he reported that he saw one fall over when he was at the regrinder's shop, breaking into two or three pieces.

Anytime you can add the experience of another man or several to your own, it's just like being in two or three places at once and you get to learn and profit from others' mistakes.

The shop meeting is where you can do it.

Yrs,
Ed.

Coping with Silicones

(Continued from page 67)

cone to the paint is followed, it is suggested that for best results the methyl silicone fluid be added to all the coats of paint that are applied to the job.

The treatment of the paint, although effective, should not be considered a substitute for thorough cleaning, because waxes or other polish ingredients may cause just as much difficulty as silicone in obtaining a smooth, adherent refinishing job.

ACCO products

Manley Wrecking Cranes

Most complete line of wreckers—9 models 3 to 10-ton boom capacity all NEWLY DESIGNED for 1956

Send coupon for demonstration or information

This 10-ton wrecker and the 8 and 6-ton wreckers *(shown at left)* all have twin booms that swing to either side and outriggers *(shown in* WC-6 *photo)*.

The best-equipped garage gets the profitable business. Mail coupon for a MANLEY demonstration.

ACCO
Manley Division
AMERICAN CHAIN & CABLE
York, Pa., Chicago, New York, Portland, Ore., San Francisco, Bridgeport, Conn.
In Canada:
Dominion Chain Company, Ltd., Niagara Falls, Ontario

Ask for Demonstration

MANLEY DIVISION SAJ
American Chain & Cable, York, Pa.
Please arrange demonstration ☐
Send literature and prices ☐
Name_____
Address_____
Town_____ Zone____ State____

California Sales Plan Assailed by BBB

THE Los Angeles (Calif.) Better Business Bureau has warned dealers and the public about a so-called "auto sales procurement plan" which claims to make customers into salesmen.

According to the BBB, Boka Management, Inc., Long Beach, has made arrangements with some dealers to set up a program under which people who buy cars from the dealership are paid commissions for sending in other prospects. In return, Boka gets a handsome commission on each car sold

The customers who get into the program are sold on the idea that they can get a car for nothing by referring prospects to the dealership. The BBB said that the average customer can't get enough out of it to pay for his car, however.

The dealership is supposed to pay the customer $100 for each sale made to a prospect referred through the program and $25 if the sale is not made. Then if the prospect buys and refers another potential buyer, both he and the first customer are supposed to get commissions. It works something like a chain letter, in other words.

Even if the plan works, how can the dealer make any money if he has to pay commissions to his own salesman, one or more customers, and a company, and if he has to pay a commission even on sales that aren't made? asked the National Automobile Dealers Association. The BBB also reported that the plan had been leading to disagreements about commissions and to numerous complaints from people who bought a car through it.

Miamians Elect Caldwell

The Miami Automobile Dealers Association has elected Thomas P. Caldwell, Tom Caldwell Motors (Studebaker), Coral Gables, president; Edgar Jones, Nolan-Brown Motors, Inc. (Cadillac-GMC-White), vice-president, T. B. McGahey, Jr., T. B. McGahey Motors, Inc. (Chrysler-Plymouth), treasurer, and L. A. Schroeder, executive secretary.

flawless and incomparable matched gems in the jeweled crown of

Ignition Perfection

Only an ignition heritage steeped in the tradition of perfection is capable of the artistry necessary to produce an ignition component such as a Filko condenser. Not just a replacement part, but a true improvement in ignition, Filko condensers are precision crafted in an application range of exclusive completeness. From magneto equipped motors, through fractional H.P. motors to the most powerful giants of the highways and seaways . . . there's a Filko condenser that improves—not just restores—operating efficiency.

Filko

. . . Exclusive Completeness in Every facet of the Crown

F. & B. Mfg. Co.
4248 W. Chicago Ave.
Chicago 51, Ill.

Warehouses in: Los Angeles, Oakland, Miami, Fort Worth, New York, Boston, Atlanta, Cleveland, Lubbock, Little Rock, Philadelphia.

C1485

NEW HEAVY DUTY SELECT-AIR* IMPACTOOL

weighs only 5 lbs.

*AIR REGULATOR LETS YOU SELECT THE POWER YOU WANT!

Now, a premium quality, top performing, high-speed Air Impactool is available at a price every mechanic can afford. The light, compact Select-Air Impactool gives you extra power for all but the largest nuts on cars and trucks—lets you control its power for lighter jobs. Standard attachments easily convert it into a multi-purpose tool.

- reamer
- screw driver
- tapper
- wire brush
- hole sawer
- wood borer
- stud driver

Ask for a demonstration of the amazing Select-Air Impactool in your shop. Call your Ingersoll-Rand jobber now. 18-435

Ingersoll-Rand

11 Broadway, New York 4, N.Y.

Originators of Impactools AIR & ELECTRIC

Crankcase Contamination Can Be a Headache

PLYMOUTH Division of Chrysler Corp. offered the following suggestion last month on meeting crankcase contamination:

Deposits of sludge on engine parts is generally recognized as an important cause of poor engine performance. The types of sludge range from hard lumps or grainy deposits to a soft, pasty mixture, depending on how the contaminant entered the engine.

Operating habits of drivers can greatly influence the amount of condensation and sludge found in a crankcase. This condition is primarily found in cars used for trips of short duration and at slow speeds. Condensation formed under these conditions should not be interpreted as a water leak. If the source of leakage cannot be determined, careful consideration should be given to the driving habits of the operator.

Under driving conditions of short duration, the formation of sludge can be retarded by changing the crankcase oil more frequently and using a 180° thermostat for the cooling system. Operation of the engine at the higher temperature reduces the possibility of moisture condensation.

GM Booklet Praises Array of Suppliers

THE partnership in production of General Motors and its 21,000 supplier firms was stressed last month in GM's revised booklet, "Selling to GM," now being distributed to present and potential suppliers around the world.

The booklet contains a directory of GM manufacturing divisions with a list of the civilian and defense products made by each. It invites suppliers wishing to do business with GM to contact purchasing departments of divisions or plants which they believe they can serve.

"Our suppliers are GM's other arm," said President Harlow H. Curtice. "We could not operate without them.

"Their engineering and production know-how and their high standards are reflected in the high quality of our products. Out of every single dollar that General Motors takes in for the sale of its products, nearly 50 cents is paid out to suppliers for materials, parts and services."

Oklahoma Dealers to Get Liability Coverage

AUTHORIZATION to begin writing dealers' garage liability insurance coverage has been given the Oklahoma Automobile Dealers Mutual Insurance Co. by its board of directors.

The coverage will be written at a 25% deviated rate, or 75% of the standard rate premium.

Among the factors involved in influencing the directors to add another insurance facility to the workmen's compensation coverage already offered was the highly attractive reinsurance contract offer by a well-established casualty insurance company. Little additional cost for both premiums plus the franchised dealers' experience in the garage liability field were also taken into consideration with the fact that many dealers prefer to have both workmen's compensation and garage liability with the same insuring company, according to a bulletin of the Oklahoma Automobile Dealers Association.

Albuquerque Dealers Plan Show in February

AN AUTOMOBILE show will be held at the Coliseum Building at the State Fair Grounds, Albuquerque, N. M., Feb. 9-16 under auspices of the Aubuquerque New Car and Truck Dealers Association.

Chairman of the show committee is W. Ed Black. Other members are Knox Converse, Ray S. Darwin, J. P. Davidson, Robert Derryberry, W. W. Derryberry, H. L. Galles, Jr., Frank Groesbeeck, Sr., George O. Haley, Donald Jones and Jack Jones. William Randolph is show manager.

Parker Hansen Co. Bought By Rollins Fleet Leasing

ACQUISITION of Parker Hansen Co., Miami, Fla., automobile leasing company, by Rollins Fleet Leasing, Rehoboth Beach, Del., has been announced jointly by David Davis, president of Parker Hansen, and John W. Rollins, president of Rollins.

Rollins said that Parker Hansen had vehicles operating throughout the country, and that all of its fleet accounts would be taken over by his company. Rollins operates fleets in all 48 states and is said to be the largest straight leasing company in the nation.

HEAVY DUTY ELECTRIC IMPACTOOL

$130.

SIZE 5U

MAXIMUM POWER AND SPEED FOR ANY JOB!

Here is the lightest, most powerful 1/2" drive Impactool in its field. Handles all but the largest nuts and bolts on cars and trucks. Ideal for use on today's high compression, high torque engines. The 5U gives you extra power and speed on universal joint and angle head jobs and it's multi-purpose, too. Standard attachments easily convert it from a nut runner into the following tools:

- reamer
- screw driver
- tapper
- drill
- wire brush
- hole sawer
- wood borer
- masonry drill
- stud driver

Get a demonstration of the 5U in your shop today. Your Ingersoll-Rand jobber will arrange it at no obligation.

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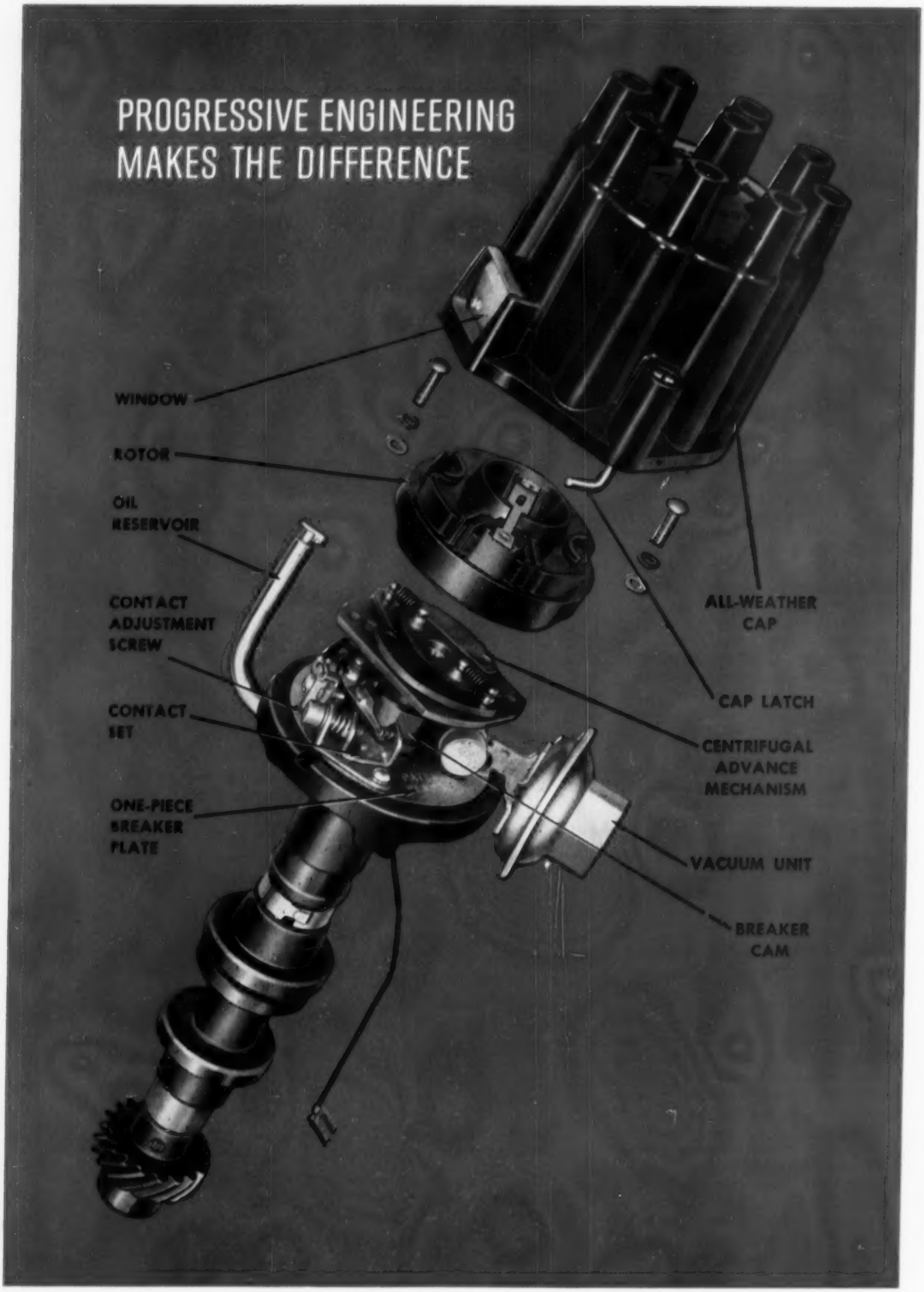
Originators of Impactools AIR & ELECTRIC


PROGRESSIVE ENGINEERING
MAKES THE DIFFERENCE
WINDOW
ROTOR
OIL
RESERVOIR
CONTACT
ADJUSTMENT
SCREW
CONTACT
SET
ONE-PIECE
BREAKER
PLATE
ALL-WEATHER
CAP
CAP LATCH
CENTRIFUGAL
ADVANCE
MECHANISM
VACUUM UNIT
BREAKER
CAM

DELCO-REMY DEVELOPS REVOLUTIONARY NEW EXTERNAL ADJUSTMENT DISTRIBUTOR

Designed especially for *present* and *future* high-compression engines, Delco-Remy's trend-setting new external adjustment distributor increases timing accuracy, provides greater electrical efficiency and durability combined with unprecedented ease of servicing.

Contact point opening (and hence cam angle) is adjustable through a "window" in the cap *while the engine is running*. No special tool is required—just a simple "hex" wrench. The contact point set is a unit completely assembled and adjusted before being attached to the breaker plate . . . is easy to replace, in servicing, with a new factory-adjusted set, simply by removing two attaching screws.

Centrifugal advance components have been relocated to a position *above* the circuit breaker mechanism, making it possible to locate the high-rate-of-break cam and the high speed breaker lever directly adjacent to the main bearing, for maximum rotational stability. The new one-piece circuit breaker plate rotates about the upper main bearing on a precision-fit bearing surface concentric with the shaft. Because of this new low-friction, concentric-rotating breaker plate, vacuum advance performance and hence fuel economy, are improved.

The new all-weather cap is easy to remove and replace—even in crowded underhood areas—by simply turning the spring loaded latches with a screwdriver. Removal of the cap completely exposes the entire distributor mechanism for easy access.

This all-new design in ignition distributors is another example of Delco-Remy leadership "Wherever Wheels Turn or Propellers Spin."

DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA

GM GENERAL MOTORS

GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

ELECTRICAL SYSTEMS

Ten-Million Car Sales Market Looms In Few Years, Dodge President Says

RECORD-BREAKING sales of automobiles in 1955 represented the "first clear tip-off" on the real size of the demand for cars in this country, William C. Newberg, president of Dodge Division, Chrysler Corp., told the Seattle (Wash.) Chamber of Commerce last month.

Chances are "very good," he said, that the eight-million car market of 1955 will be "nothing much to shout about" from 1960 on, with a ten-million market likely by 1965 or shortly thereafter.

Newberg, who left Seattle as a University of Washington graduate 23 years ago to join Chrysler, was there to receive the university's "most distinguished alumnus" award for 1956.

President Newberg

The Dodge executive acknowledged that production and sales figures for the current year were below the 1955 level, with 2.8 million passenger cars being built in the first five months of 1956 as compared with 3.6 million for the same period a year ago.

"This situation had led some people to say there was something very abnormal about last year's automobile market," he said. "It is my own belief, however, that in 1955 we got the first clear tip-off on the real size of the demand for automobiles under conditions that we might call normal, dynamic growth in the economy. We may not have another year as big as 1955 for another few years. But the chances are very good that from 1960 on we will consider an eight-million car market as nothing much to shout about."

Newberg pointed to several trends to support his views. He cited the nation's population growth as one example, pointing out that the country's population not only is growing at the rate of almost three million persons a year, but also to the fact that the greatest expansion is being enjoyed by suburban areas in this country.

"Any way you figure it, these facts mean good business ahead for Detroit," Newberg said. "It is part of the logic of suburban living that the man of the house has his own car for driving to work and for golfing, fishing and hunting, while his wife, who manages the household, has her own car and uses it as a necessary facility for modern living. Just as the typical new suburban home has three or four bedrooms instead of two, it also has garage space for two cars

Higher Speeds...
Quicker Stops...
Hotter Drums...

MANY 1956 CARS ARE EQUIPPED WITH EXPANDERS

they all call for

New EIS "E" Series
E-X-P-A-N-D-E-R Type
WHEEL CYLINDER CUPS

MADE OF A NEW, HEAT-RESISTING COMPOUND

- Low temperature flexibility to 50°F below zero!
- Tougher for better wear!
- Balanced springs!
- Expanders are centralized!

EIS "E" Series WHEEL CYLINDER CUPS are available for all cars. They stand up better and that makes them a "must" for today's high-speed operation!

New CHANGE-OVER KITS for Ford, Chevrolet, GMC and other trucks. Replaces "U" Ring Type Cup installations.

NEW 1956 CATALOG JUST OFF THE PRESS! Write today!

EIS AUTOMOTIVE CORP., MIDDLETOWN, CONN.

In your sale of engine bearings for replacement, there's only one key to profit—MICHIGAN HI THERM. Make us prove it.

DETROIT ALUMINUM & BRASS CORPORATION

DETROIT 11, MICHIGAN

MANUFACTURERS OF ENGINE BEARINGS FOR ORIGINAL EQUIPMENT SINCE 1925

instead of one.

"Recent studies show that between August of 1953 and August of 1955 the number of multiple-car families grew from three and a half-million to over six million. This was an increase of more than 70% in two years."

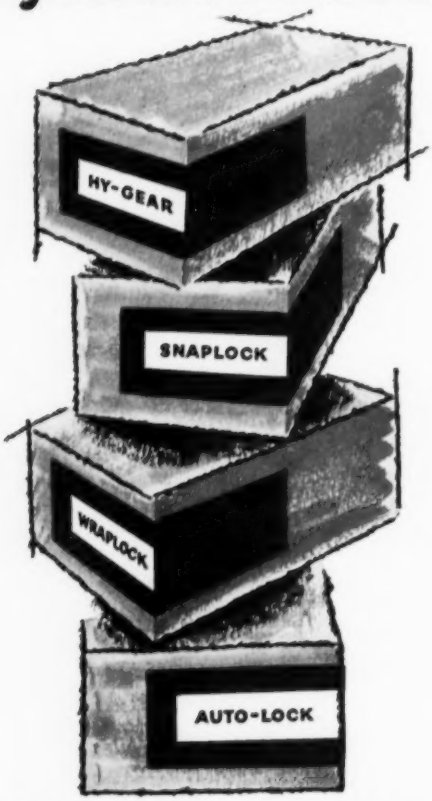
Coupling these figures with a scrappage rate for worn-out cars that he predicted would increase to something like five million a year within the next decade, Newberg said that his projection of an average market of eight million new cars a year "is probably on the conservative side."

"We believe it may very well reach ten million cars a year by 1965 or shortly thereafter," he said.

Rose Undergoes Operation

W. T. Rose, Ford dealer at Union, S. C., underwent an operation at a Charlotte, N. C., hospital last month. He is the immediate past president of the South Carolina Automobile Dealers Association.

What'll you have in hose clamps?



We have them all!

the pacesetter in hose clamps since 1913

ideal Corporation
BROOKLYN 7, N.Y.

Atlanta Fleet Men Hear Burke on Safety

"HIGHWAY Safety" was the subject of the June meeting of the Atlanta (Ga.) Fleet Superintendents Association. Speaker was E. S. Burke, executive vice-president of the Georgia Motor Trucking Association and formerly with the State Highway Patrol for 18 years.

R. J. Wylie, Roadway Express, Inc., is president of the association; O. H. Crowe, Atlanta Gas Light Co., first vice-president; P. C. Wade, Atlanta Transit System, second vice-president; W. C. Knott, Motor Leasing Corp., secretary-treasurer, and R. J. Edge, Swift & Co., assistant secretary-treasurer.

Tarheels Organize and Elect

The Pitt County (N. C.) Automotive Dealers Association has been formed from the Greenville Automobile Dealers Association and has elected Lee Folger, Jr., Folger Buick Co., Inc., president; T. I Wagner, Wagner-Waldrop Motors, Inc., vice-president, and F. Badger Johnson, John Flanagan Buggy Co., Inc., secretary-treasurer.

Hicks Heads Kentucky Group

Sam Hicks, Sam Hicks Motor Co., Inc., Elizabethtown, Ky., has been elected president of the newly-organized Elizabethtown New Car Dealers Association. Other officers are James L. Pate, Pate Motor Co., Inc., vice-president; Sam Swope, Swope Motors, Inc., secretary, and Neil Judd, The Marion Co., treasurer.

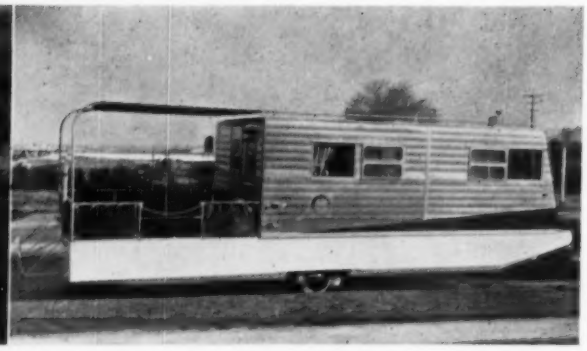
Melbourne Floridians Elect

The Melbourne (Fla.) Automobile Dealers Association has elected Walter A. Fordyce, Fordyce Chevrolet Co., president; B. L. Heiman, Heiman Pontiac Corp., vice-president, and Elliott C. Newell, Newell Motor & Equipment Co. (Ford), secretary-treasurer.

Mitchell of Virginia Succumbs

J. Clyde Mitchell, 49, president and treasurer of Mitchell Motors, Inc., Martinsville, Va., died recently at his home. A native of Bassett, Va., Mitchell had been in the automobile business in Martinsville for the past 17 years.

First
and
Foremost
FOR HIGH COMPRESSION ENGINES
FITZGERALD
GASKETS
Performance proven . . . the best answer to the need for stronger, tougher gaskets for modern high compression engines.
For replacement trade and original equipment, FITZGERALD Gaskets have stood the test of time since 1906.
Sold throughout the world.
The name "FITZGERALD" stamped on every gasket is your guarantee of satisfaction.
GREASE RETAINERS • CORK GASKETS • FITZ-RITE TREATED FIBER GASKETS
FOR OIL, GASOLINE AND WATER CONNECTIONS
COMPLETE SETS FOR MOTOR REBUILDERS
FITZ GERALD
Gaskets
SINCE 1906
THE FITZGERALD MANUFACTURING COMPANY
Torrington, Connecticut
BRANCHES AND WAREHOUSES
LOS ANGELES, CALIF.: CHICAGO, ILL.
CANADIAN FITZGERALD LTD., TORONTO, CANADA



The "Neptuna," a 28' conventional trailer manufactured by the automotive division of Neptuna Corp. of Glendale, Calif., converts into a water cruiser by backing it into the water and retracting the wheels. Power afloat is supplied by an outboard motor.

•

...the difference can be

Herbrand Tools

It takes the *right* tool to do the job . . . and here's where you can depend on your Herbrand jobber. He has the right tool for every job, because Herbrand leads in tool research and design. Because of this leadership, Herbrand has been the official "500" tool, year-after-year—and the choice of master mechanics everywhere!

Stay ahead of the hard jobs. Use Herbrand Tools. See your jobber.

TOOL OF THE MONTH

Distributor Lock Bolt Wrench No. 2377

For servicing Chrysler-built 1955-56 V-8 engines. Clears engine compartment obstruction—fits any ⅜" drive handle or ratchet. Drop forged alloy steel. Mechanic's net $2.45.

OFFICIAL TOOL OF THE "500" MECHANIC

Herbrand Tools

FREMONT, OHIO

Let's Slap Death's Face

(Continued from page 50)

man's muffler and tailpipe, for example, and suggesting a replacement. Selling the job should be simply a matter of poking a pencil into the muffler hole! Or of pushing down on the brake pedal. You may even thereby save the man's life.

Not many people get mad at folks who are trying to save their lives!

AMA Reelects Officers; Names Directors

THE Automobile Manufacturers Association has reelected James J. Nance, president of Studebaker-Packard Corp., president. He has held this position since February, 1955.

Also reelected were E. J. Bush, president of Diamond T, vice-president; Harlow H. Curtice, president of General Motors, secretary; George W. Romney, president of American Motors, treasurer; Alfred Reeves, advisory vice-president, and William J. Cronin, managing director.

Directors reelected were Robert F. Black, White Motor; L. L. Colbert, Chrysler Corp.; Edgar F. Kaiser, Kaiser Industries, and W. C. Schumacher, International Harvester. Other directors named were J. N. Bauman, White Motor; W. F. Hufstader, General Motors; C. L. Jacobson, Chrysler Corp.; P. O. Peterson, Mack Trucks, and J. J. Timpy, who is with American Motors.

Dealers say:

"You gain in profits *and prestige* when you sell Velvet-rides!"

Columbus Velvet-ride Shock Absorbers give profits two ways—in *cash* and in customer satisfaction. You need both to be successful.

Velvet-rides are first quality—offering all the Columbus exclusive features at a competitive popular price. In no other shock absorber can you find as many selling and performance points as those offered in Velvet-ride shocks: automatic adjustment; fade-free design; complete double action; the unique air-trap dome; right side up mounting; rugged, yet cool, single tube design; a piston the size of a half dollar.

Sell Velvet-ride and you sell today's best shock absorber value! They are guaranteed for 15,000 miles or 1 year.

Sell seven sets of Columbus Velvet-rides each month and reward yourself with more than $1000, plus installation charges, each year.

$1000 REWARD

COLUMBUS Velvet-ride SHOCK ABSORBERS
LICENSED BY DE CARBON

another quality • HECO • *product*

HECKETHORN MANUFACTURING & SUPPLY CO. • LITTLETON, COLORADO

These graduates know a lot more today about carburetion since graduating from the school conducted at Spartan Automotive, Inc., Spartanburg, S. C. They have formed a tri-state club since graduation. Left to right you see: G. O. Gilbert, John Stott, Tommy Whitfield, Jimmie Dill, J. Henry Miller, T. R. "Ted" Garrison, president of Spartan, Myles Tillotson, instructor and service manager at Spartan, Tom Padgett, Carl Shores, B. E. Laughter, Leonard C. Dover and Jimmie Mitchell. Absent but receiving diplomas were Claude Willard, Howard Parris and Bill Linder

GENUINE P&D IGNITION PARTS

Announces

THE MOST ADVANCED DESIGNS IN

CONTACT SETS

HEAVY DUTY

Ventilated

CONTACT POINTS

TO FIT FORD • MERCURY • LINCOLN

Always install a new P & D Condenser with P & D Contacts. P & D has a complete line of matched Contact Sets (Pre-assembled for fast and accurate installation) and Condensers to fit the ignition systems of all cars and trucks. P & D means Performance and Dependability!

P & D Heavy Duty VENTILATED Contact Sets will give smoother and better engine performance over a longer period of time than any other type set. Better contact surface is obtained and the transfer of metal deposits from one contact to the other is eliminated. Under normal conditions these P & D Contact Sets should give up to three times longer service. That's P & D Quality!

See Your P & D Catalog

GENUINE P&D PARTS

MANUFACTURING CO., INC.

Established 1920

19-02 Steinway St., Long Island City 5, N.Y.

Expert Sales: Borg Warner International, 36 So. Wabash Ave., Chicago 3, Ill.

Student Training Need Cited by Missourian

THE need for more franchised car dealer participation in driver training courses in high schools was spotlighted last month by Manager James A. Gorman of the Missouri Automobile Dealers Association.

In a bulletin he said:

"Dealers, do you realize that out of our 580 public high schools in Missouri only 267 offer a driver training course? Not very representative, is it?

"By the way, 13 of our high schools offering driver training do not have classroom instruction on the subject. We must take stock of this situation and start doing something now to bring more qualified students into this program.

"In last year's term there were 38,017 students of legal driving age, but only 13,008 were privileged to gain this important fundamental American knowledge. Therefore, 25,009 students of legal driving age were denied this curriculum. Certainly there is much for a dealer to gain in having tomorrow's buyer sold on his product today.

"Remember, the first impression is usually a lasting one."

Hot or Cold

PENGUIN SERVER

FREE

WITH PURCHASE OF **6** GOULD BATTERIES

It's easy to get this famous West Bend Penguin hot or cold server free. Take it home and please the family — use to keep cold foods cold for hours or hot dishes hot — a beauty for table service, handy for picnics. Beautifully made in chrome and stainless steel. Two quart capacity, nationally advertised at $7.95.

FREE WITH EACH 6 BATTERY ORDER

Your Gould jobber is making this special offer to you to insure that an adequate supply of Gould Batteries will be on hand for the busy season ahead. An outstanding and proven line of batteries is yours to choose from . . . just order six Gould Batteries of any size or type and the Penguin Server is yours . . . *free.*

You and your family will like the server, your customers will like Gould Batteries.

SEE YOUR JOBBER NOW, OR WRITE US . . .

OFFER GOOD TILL SEPT. 1

GOULD-NATIONAL
BATTERIES, INC.
SAINT PAUL 1, MINNESOTA

Fast Buick Pictures Improve Dynaflow

A HIGH-SPEED photo process that takes pictures in one half-millionth of a second—fast enough to photograph a bullet in flight—has enabled Buick to design stronger parts for its Dynaflow transmission.

The photos are taken in a "burst box" where parts are spun at speeds up to 12,000 rpm, until they are ripped apart by centrifugal force.

An exceptionally high-speed flash was needed to stop action, since the circumference of the part being spun was travelling at nearly the speed of sound when the piece began to disintegrate.

A high-speed mercury flash that lasts for only one half-millionth of a second was put into the flash box. A fine screen placed around the spinning part triggers the flash as soon as the screen is touched by the first portion of the part to break loose. The picture is recorded by a standard 35mm. camera placed in the darkened burst box with the shutter left open.

The photos tell Buick engineers what segment of the part is weakest. This shows them where to strengthen the part so it will stand up.

Allen Electric Names Wade Allen President

DIRECTORS of Allen Electric and Equipment Co., Kalamazoo, Mich., have elected Wade W. Allen president, replacing L. O. Zick, who resigned.

A physicist and engineer, Allen was associated with the company's engineering department from 1945 to 1952, and for the past nine years has been a director. Since 1952, he has been a member of the instrument development staff at Upjohn Co. Allen was born in Altringham, England, where his father, G. H. Allen, the firm's founder, had been sent by Ford to manage a manufacturing plant.

GM's Rochester Names Kallas

Appointment of Erving W. Kallas as southeastern carburetor field service engineer for the Rochester Products Division of General Motors has been announced by K. F. Lingg, division service manager. Kallas' headquarters will be in Charlotte, N. C., and his territory will include Florida, Georgia, eastern Alabama, eastern Tennessee, North and South Carolina, Virginia, Maryland, southern Ohio, southern West Virginia and eastern Kentucky.

Dodge Promotes Shugg

Promotion of Richard L. Shugg, Jr., to sales promotion manager, Dodge cars and trucks, has been announced by Wendell D. Moore, assistant sales manager. Shugg, who joined Dodge in 1947, was formerly assistant regional manager in Pittsburgh and a district sales manager in several Florida locations, including Tampa and Jacksonville.

Dodge Sends Lane to Atlanta

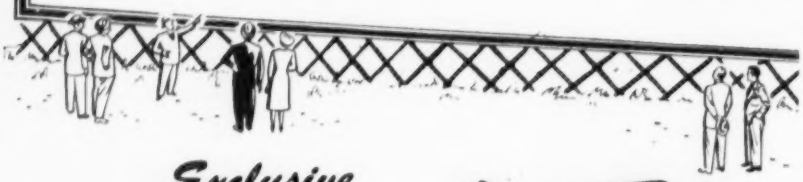
Promotion of J. H. Lane to assistant regional manager for Dodge in the Atlanta, Ga., region has been announced by L. P. Jones, regional manager. Lane, who has been in the automotive field since 1938, had been a staff man in Dodge's central zone office in Cincinnati since April, 1955.

Auto-Test

BATTERY ANALYZER and VOLTAGE TESTER

Tells exact condition of battery at a glance. Helps sell more re-charges, batteries and accessories.
FULLY GUARANTEED.

- Checks both 6 and 12-v systems
- Exclusive, expanded scales—precise reading to 1/100-v
- Retracting coiled cords
- Chrome-plated hanger clip



Exclusive ADVANTAGES make Auto-Test

ELECTRICAL TESTING EQUIPMENT

YOUR NO. 1 PROFIT LINE

EXCLUSIVE EXTRA FEATURES help you make electrical tests quicker, easier and with greater accuracy. No wonder shopmen are "sold" on every Auto-Test specialty in this famous, ever-growing line. Make Auto-Test *your* choice for year-'round *extra* service!

CONTACT YOUR JOBBER or write direct

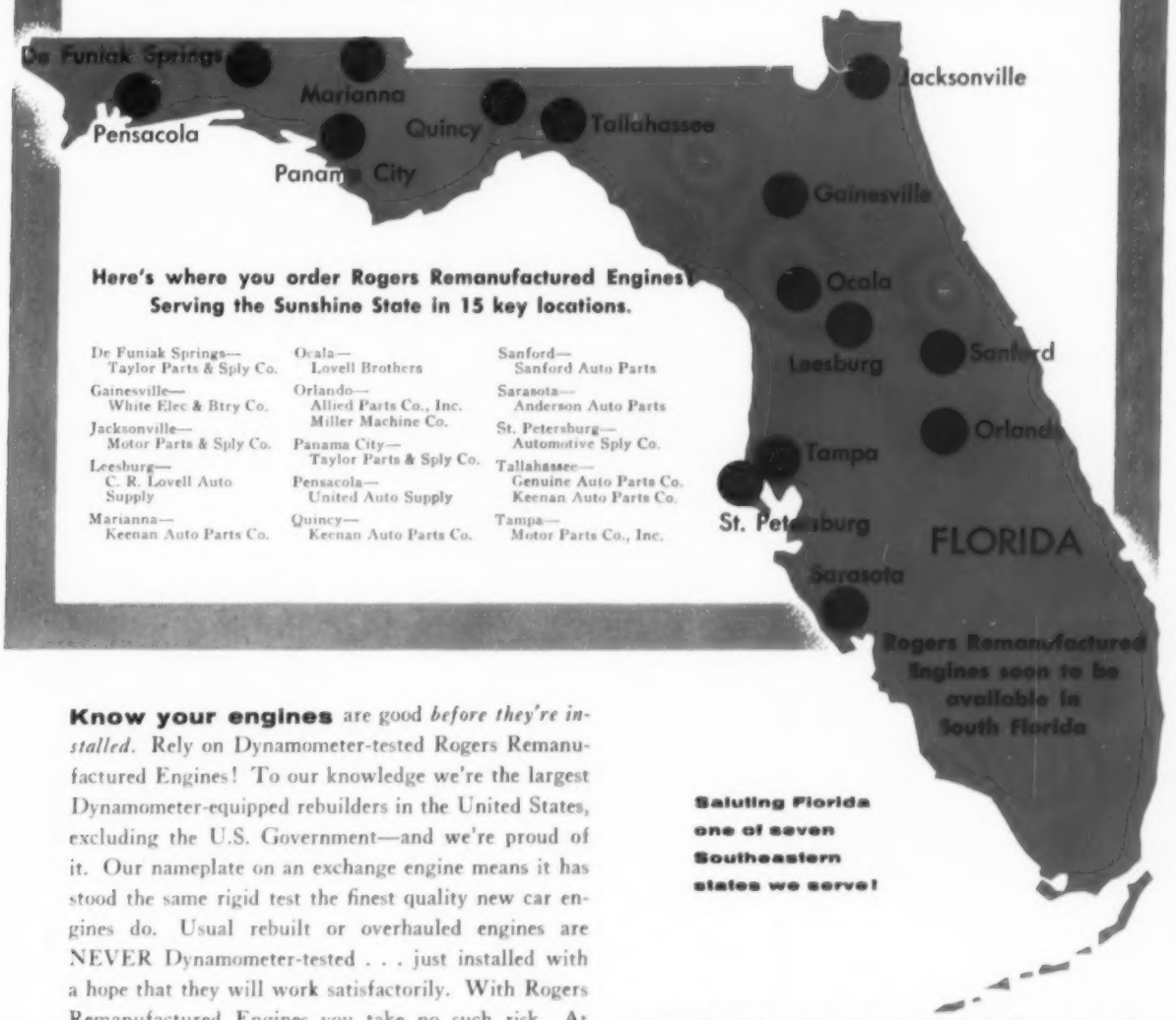
Auto-Test INCORPORATED
600 South Michigan Avenue • Chicago 5, Ill.

Your Reputation rides with the engines you install

ROGERS Remanufactured ENGINES

The Finest Replacement Engine You Can Buy

Be sure they're DYNAMOMETER-TESTED!



Here's where you order Rogers Remanufactured Engines! Serving the Sunshine State in 15 key locations.

De Funiak Springs— Taylor Parts & Sply Co.
Gainesville— White Elec & Btry Co.
Jacksonville— Motor Parts & Sply Co.
Leesburg— C. R. Lovell Auto Supply
Marianna— Keenan Auto Parts Co.
Ocala— Lovell Brothers
Orlando— Allied Parts Co., Inc. Miller Machine Co.
Panama City— Taylor Parts & Sply Co.
Pensacola— United Auto Supply
Quincy— Keenan Auto Parts Co.
Sanford— Sanford Auto Parts
Sarasota— Anderson Auto Parts
St. Petersburg— Automotive Sply Co.
Tallahassee— Genuine Auto Parts Co. Keenan Auto Parts Co.
Tampa— Motor Parts Co., Inc.

Know your engines are good *before they're installed.* Rely on Dynamometer-tested Rogers Remanufactured Engines! To our knowledge we're the largest Dynamometer-equipped rebuilders in the United States, excluding the U.S. Government—and we're proud of it. Our nameplate on an exchange engine means it has stood the same rigid test the finest quality new car engines do. Usual rebuilt or overhauled engines are NEVER Dynamometer-tested . . . just installed with a hope that they will work satisfactorily. With Rogers Remanufactured Engines you take no such risk. At no cost to you, each engine is Dynamometer-tested and adjusted under operating conditions. *Why accept an untested engine?* Look for the Rogers nameplate on engines you install!

Saluting Florida one of seven Southeastern states we serve!

JOHN ROGERS CO.

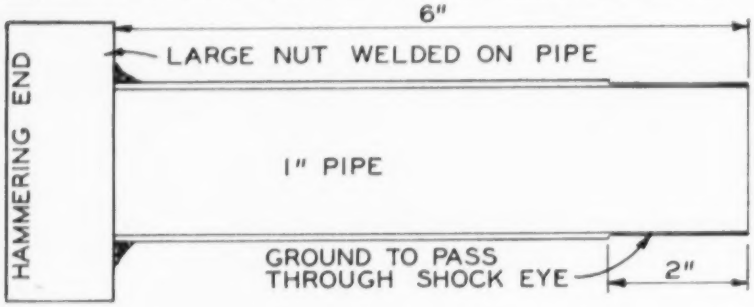
300 Hunnicutt St., N.W., Atlanta, Ga.

TIME SAVERS

Making Shock Bushing Tool For Chrysler Cars

A HANDY tool for removing and installing the bottom front shock absorber bushing on '55 and '56 Plymouth and Chrysler cars may be made from a piece of 1" pipe about 6" long and a large nut.

Weld the nut on one end of the pipe to hammer on. Grind the other end, as shown in sketch, to pass through the shock eye. The bushings may be removed and installed without damage with this tool. — *Everett May, Post Office Box 765, Pikeville, Kentucky.*



Preventing Breaking Of Radiator Necks

WE HAVE found a way to prevent the top radiator necks from breaking loose on Nash cars.

Instead of the regular top mounting bolt, use a long ¼" stove bolt and a short piece of light coil spring. Place a washer on the bolt, then the spring, then another washer and insert the bolt from the front. Install a nut on the bolt and tighten until there is a slight tension on the spring and then lock with a second nut jammed against the first. — *Victor McGee, L. E. Dick Motor Company, 415*

LUCKY NUMBERS!

for You and Your Customers

No. MB-575 SLOTTED HEAD SHEET METAL TYPE AUTO BODY AND TRIM SCREW ASSORTMENT. These hardened screws are used to replace the standard trim and body screws on all cars and trucks. Well balanced – with popular sizes from No. 6 to ¼" dia. and ⅜" to 1½" long, plated. Total of 648 screws, 30 different sizes. Packed in strong metal box. **List $12.00 per asst.**

The Champ-Items parts numbers are known and respected all over the world. Service items that have proved Time Savers – Money Makers for the repair trade for more than a quarter of a century. If you have a service problem to lick, you'll find the Champ-Items number is a lucky one!

The new 1956 Champ-Items catalog will help you speed up service –lick tough problems. Write for your copy today!

ORDER FROM YOUR JOBBER

AUTOMOTIVE CHAMP-ITEMS INC. REPLACEMENT PARTS

CHAMP-ITEMS, INC.
6191 Maple Ave., St. Louis 14, Mo.

No. MB-636 AUTO BODY TRIM AND FENDER SCREWS for all cars and trucks. Hex slotted – washer face – cadmium plated. 12 popular sizes for all general purposes, slotted for fast assembly – washer face for secure fastening. Metal box, 600 pieces. **List $21.00 per asst.**

Fiber box, 300 pieces. **List $10.50 per asst.**

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will be paid for every time - saver or shop short - cut accepted for publication in this section. A photo or rough sketch will make your idea more valuable. Only original items, not previously published, offered for our exclusive use, can be considered. Send them to: Southern Automotive Journal, 806 Peachtree St., N. E., Atlanta 8, Ga.

North 7th Street, Mayfield, Kentucky.

Installing Windshield Using Insulated Wire

EVER try installing a windshield or rear glass and have your installation string catch on a rough point and break? Discouraging, isn't it?

Next time try a No. 14 insulated wire instead of the string. It works. It slips easily and won't break.—*Melvin Henbach, Bill's Body & Fender Repair, Valley Center, Kansas.*

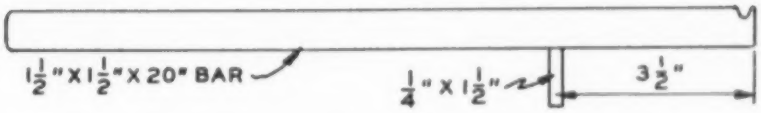
Installing the Control Arms On Late-Model Nash

WHEN installing new lower control arms on the later-model Nash cars, it is almost impossible to start the trunnion bushings in the outer ends correctly. The bushing must cut its own threads and is very difficult to turn. This, coupled with maintaining alignment and proper position of trunnion, makes a mean job.

Before installing the arm on the car, clamp it in a vise and start the bushing from the inner side, which is chamfered, and run it on through with a heavy-duty ratchet. Remove the bushing and install the arm. The trunnion bushing will start straight and easily, since the threads are already cut and in line.—*Victor McGee, L. E. Dick Motor Company, 415 North 7th St., Mayfield, Kentucky.*

To Install Hand Springs On '49-'52 Chevrolets

FOR INSTALLING the hand springs on '49-'52 Chevrolets, I use a tool which can be made from a bar



of iron 1½" x ¼" x 20" long in this way:

Grind a notch for the spring to hook into along the edge of one end of the bar. Then weld a piece of ¼" x 1½" x 1½" steel 3½" from the end in which the notch is ground.

Hook the notch in the spring, rest the square of steel on the fender brace and push down on the other end of the bar. The steel piece prevents the bar from rocking while the spring is being lifted. To understand better how this is done, note the illustration above. —*Arden Grubb, Britton Ford Sales, Louisa, Kentucky.*

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Checking Universal Joint Slip Yoke Plug on Nash

When the transmission rear oil seal on Nash 40 and 10 series appears to be leaking and is being replaced, the plug in the rear end of the front universal joint slip yoke should always be checked.

I have found a number of these cars on which the rear drive shaft coupling had loosened, allowing the shaft to work forward and loosen the plug. This allows grease to come out through the splines.—*Victor McGee, L. E. Dick Motor Company, 415 North 7th Street, Mayfield, Kentucky.*

More, Safer Brake Fluid In '55, Reports CSMA

Production of at least 10,500,000 gallons of hydraulic brake fluid in 1955 to service the nation's more than 51,000,000 automobiles, trucks and buses was reported by the Chemical Specialties Manufacturers' Association last month.

Actual gallonage reported by 28 manufacturers, which the association's automotive division estimated included 90% of all brake fluid production, was 10,624,619—up 24% over 1954 when the association conducted its first annual study of the safety aids.

The 1955 totals indicated slightly more than half of all brake fluid produced was of the heavy duty 70R1 or R-71 types, and 27% was of moderate duty 70R2 or R-72 types, all of which meet SAE specifications. An additional 3% met specific government requirements for other than heavy duty fluids, while only 17% failed to meet either.

In its efforts to promote motoring safety through elimination of non-specification brake fluids, the industry appears to be making "rapid strides," the association said. Among states which recently passed laws prohibiting sale of other than SAE heavy duty brake fluids were Georgia, North Carolina, South Carolina and Tennessee. Mississippi has set the SAE moderate type as the minimum permissible for sale in that state.

High Used-Car Sales Seen by Churchill

Based on the high rate of used-car sales in the first four months of this year, Harold E. Churchill, Studebaker general manager, forecast last month that nine million families will purchase used cars during 1956 from franchised new-car dealers, and another three million from used-car dealers.

Sales of used units are "bumper-to-bumper" with last year's levels, he reported, while new-car sales have "slowed down" in the first four months of the year from the record set last year.

The average used-car buyer will spend $800 to $1,000 this year, he said.

American Motors Picks Berry

Wallace S. Berry has been appointed director of research for the automotive division of American Motors Corp., Meade F. Moore, vice-president of automotive engineering and research, announced. Berry, who has been the division's chief mechanical engineer, previously held the same post with Nash Motors since 1946. He joined Nash in 1929 as an engineering test driver and has been responsible for many important Nash engineering and research developments.

Chrysler Stunt Ruled Lottery in Virginia

THREE Fredericksburg (Va.) automobile dealers were forced to withdraw from Chrysler Corp.'s nationwide "jackpot" promotion program upon advice that it was considered a lottery by Commonwealth's Attorney W. B. F. Cole.

City police were instructed by Attorney Cole to contact the dealers and offer them the choice of voluntarily withdrawing from the advertising stunt or facing prosecution.

Only one dealer was found actively engaged in the promotion, while two others were awaiting the arrival of necessary entry forms. All three readily agreed to withdraw.

The giveaway offers 446 prizes amounting to $100,000. Participants must register their car license number and complete a sketch showing the push-button driving system on the new Plymouth. However, one of the rules of the contest is that it is subject to all federal, state and local regulations.

Student Driver Training Gets Boost by GM

GENERAL Motors' program of providing an allowance of $125 for every training car loaned by a dealer has helped boost student driver education at least 10% this year, estimated T. H. Keating, Chevrolet general manager.

He based his statement on reports from Chevrolet dealers throughout the country and information by the American Automobile Association and the Inter-Industry Highway Safety Committee.

"Although final results are not now available," Keating said, a preliminary report by the AAA "shows that Chevrolet dealers led the nationwide program with approximately 4,000 cars. This is in comparison with 3,554 for the previous school year, which represented half the industry's total."

Wat Henry Dies in Tulsa

Wat Henry, 55, well-known Tulsa, Okla., automobile dealer and former owner of the Wat Henry Pontiac agency, died recently in a Tulsa hospital. Henry was chosen in 1953 to represent Pontiac dealers of Oklahoma on the Pontiac advisory committee of the National Automobile Dealers Association.

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101 WRITE FOR CURTIS LITERATURE ASSEMBLY KIT C-6—Gives full information on Curtis Air Compressors, Curtis Car Washers and Curtis Auto Lifts, Curtis Pneumatic Machinery Division of Curtis Mfg. Co., 1938 Kienlen Avenue, St. Louis 20, Mo.

102 MODEL NUMBER INTERCHANGE — Handy reference sheet with complete listing of all passenger cars by model number interchangeably with model name. Saves look-up time by including car model data not found elsewhere. Useful as a supplement to every automotive parts catalog. Kem Mfg. Co., 20-21 Wagaraw Rd., Fair Lawn, N. J.

104 VENTILATED CUSHIONS — Full merchandising program on Kool Kooshions, including handsome wire display rack, 4-page full color catalog, other advertising on complete Kool Kooshion line. Kool Kooshion Mfg. Co., Oklahoma City, Okla.

105 WAGNER AIR BRAKE AND ROTARY AIR COMPRESSOR BULLETIN — Discusses in detail straight air and air-over-hydraulic air braking systems. Contains an explanation of the operation of the Wagner Rotary Air Compressor complete with diagrams cross section drawings, and photographs. Lists by catalog numbers component parts as well as field installation kits. Write for Catalog KU-201, Wagner Electric Corporation, 6362 Plymouth Avenue, St. Louis 14, Missouri.

106 CAP MERCHANDISER — How to increase profits by use of radiator and gasoline cap Merchandiser. The space saving Merchandiser saves you time and money while increasing sales and profits. Ask for detailed information. Stant Mfg. Co., 1620 Columbia Ave., Connersville, Ind.

107 THERMOID HYDRAULIC BRAKE PARTS MANUAL — A 16 page manual in simple language with illustrations. Descriptions of servicing, bleeding and flushing procedures are set forth, also instructions on rebuilding master and wheel cylinders. Brake fluid requriements are listed and hydraulic brake system operation is explained. This new manual, Form No. HBP-100 is companion piece to Thermoid Brake Service Reference Book. Thermoid Co., Dept. R, Trenton, N. J.

108 1956 EDITION OF 12 VOLT ELECTRICAL EQUIPMENT FOR PASSENGER CARS — Contains description of 12-volt automotive electrical equipment used on 1956 model cars, giving special emphasis to the new external adjustment type distributor and the enclosed shift lever type cranking motor. Recommendations for periodic servicing, checking and adjusting of the charging, starting and ignition systems are discussed. Special section devoted to trouble shooting of 12-volt electrical equipment. Technical Literature Section, Delco-Remy Div., Anderson, Ind.

111 SELECTION GUIDE OF SPECIALIZED LUBRICATION TOOLS — Set up in chart form covering 19 makes of cars and 8 specialized tools. Especially helpful to inexperienced operator, making it practically impossible to select the wrong gun or accessory for any given operation. Also has chassis drawing pointing out every part named. Form No. 38-808, Alemite Div., Stewart Warner Corp., 1826 Diversey Parkway, Chicago 14, Illinois.

113 TIMING LIGHT MANUAL — 20 page booklet gives full operating instructions for the three Auto-Test timing lights. Includes information about service and repair of light as well as the warranty offered by Auto-Test, Inc., 600 S. Michigan Ave., Chicago 5, Ill.

114 32 REASONS FOR OIL CONSUMPTION and easy-to-use, indexed corrective manual listing 32 major oil consumption problems and remedies. Informative, illustrated, prepared by one of the top technical staffs in this field. Write Oil Consumption Booklet, American Hammered, 2001 Sanford Street, Muskegon, Mich.

116 TOOLS FOR AUTOMATIC TRANSMISSION SERVICE — Tools and illustrated instructions for servicing Olds, Cadillac, Pontiac, Lincoln, Nash, Hudson, Kaiser, Frazer, Ford, Mercury and Chevrolet automatic transmissions are shown in a catalog supplement offered by Blackhawk Hand Tools, New Britain, Conn.

118 BRAKE SERVICE GUIDE — Complete instructions for inspecting, flushing and bleeding the brake system. Handy trouble check chart. Write for Bulletin HU-411. Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo.

119 RAMCO SERVICE MANUAL — 5th edition. Illustrated. Gives complete data on piston ring installation—also hints on locating engine trouble—causes of oil loss—pitfalls of motor-overhauling and how to overcome. Ramsey Corp., 3698 Forest Park Blvd., St. Louis 8, Mo.

121 OIL FILTER CARTRIDGE INSTALLATION MANUAL — Gives step by step instructions for easier oil filter service on all cars through 1956. Lists crankcase capacities, tools required, plus handy cross reference chart. Wix Corp., Gastonia, N. C.

122 TIRE RETRUING — An illustrated gulletin about this newest extra profit service. Describes Bear "On-A-Car" Service which makes possible tire retruing right on-the-car. Explains method using most advance truing principle. Bear Mfg. Co., Dept. SAJ Rock Island, Ill.

123 AERO-SEAL HOSE CLAMPS — An illustrated 4 page folder giving clamp ranges, mechanical information, engineering data, stock numbers, packaging, etc. Breeze Corps., Inc., 700 Liberty Ave., Union, N. J.

125 STANDARD DUTY GENERATOR REGULATORS — A 16-page 8½ x 11 inch booklet covering the operation and maintenance of Delco-Remy regulators. (62 pictures) Contains illustrations showing various steps of adjustment. Will help automotive electricians understand and service regulators. Delco-Remy Service Department, Anderson, Indiana.

127 HYDRAULIC BRAKE FLUID SERVICE — HOW TO CHECK, DRAIN, FLUSH, REFILL, BLEED — Easy reference book that contains helpful service instructions as well as detailed descriptions and illustrations of the latest methods and procedures for profitably servicing hydraulic braking systems. Send for Bulletin HU-17H, Wagner Electric Corporation, 6362 Plymouth Avenue, St. Louis 14, Missouri.

129 AUTOMATIC TRANSMISSION SERVICE TOOLS — Illustrated Catalog Supplement showing use of tools for Olds, Cadillac, Pontiac, Lincoln, Nash, Hudson, Kaiser, Frazer, Ford, Mercury and Chevrolet automatic transmissions. The New Britain Machine Co., New Britain, Conn.

130 VALVE CATALOG — A new 166 page catalog of valves, valve guides, valve seats, valve openings and other valve components is offered by Rich Mfg. Corp., Battle Creek, Mich.

132 AUTOMOTIVE SERVICE GUIDE—A practical and factual presentation of the use of Impactools in automotive servicing. Contains time study reports showing how dealers and shops can increase profits for both themselves and their mechanics. Automotive Service Guides are now available for Ford, Chevrolet, Plymouth, Oldsmobile, Hudson, Studebaker and general truck service. Specify which Guides you want. John K. Uhler, Ingersoll-Rand Co., Phillipsburg, N. J.

133 CATALOG NO. 56 — Features more than 300 Champ-Items automotive replacement parts for all makes of cars. A handy service book. Champ-Items, Inc., 6190 Maple Ave., St. Louis 14, Mo.

134 STREAMLINER CATALOGS on Moog Coil action front end parts, coil springs, chassis parts and electrically heat-treated springs for cars and trucks. Moog Industries, Inc., 6651 Easton Ave., St. Louis 14, Mo.

135 WHEEL WEIGHTS — Colorful catalog describes eight types of balance weights covering 74 sizes. Also lists weight tools for application and removal of weights. Snugl Wheel Weight Mfg. Co., Kokomo, Ind.

137 DELCO-REMY ELECTRICAL SERVICE — A 20-page 8½x11-inch booklet covering essential steps in servicing the electrical system on an automobile. Profusely illustrated (84 pictures). A must for the automotive electrician. Delco-Remy Service Department, Anderson, Ind.

138 PLUG CHEK — A colorful wall banner showing condition of spark plugs under various driving conditions. This service tool is designed to assist service men in diagnosing spark plug heat range problems. The Electric Auto-Lite Co., Toledo 1, Ohio.

139 AIR COOLED ENGINE VALVES—A complete 8 page & cover catalog of valves for air-cooled engines and locks, first offered by any replacement valve manufacturer. Lists replacement valves for leading manufacturers of engines used for powering lawnmowers, garden tractors, mixers, conveyors, pumps, combines, industrial engines, refrigeration units. Rich Mfg. Corp., Battle Creek, Mich.

140 PRESSURIZED COOLING SYSTEM —Servicing and maintenance of the pressurized cooling system is detailed in a booklet available from Stant Mfg. Co., 1620 Columbia Ave., Connersville, Ind.

141 NEW PISTON RING CATALOG and full Power Story on Moog X-Plus Piston Rings for motor reconditioning. Moog Piston Ring Co., 6651 Easton Ave., St. Louis 14, Mo.

143 TRUCK SERVICE GUIDE — 32 page bulletin gives the truck service shop accurate time and cost comparisons in doing a number of common service jobs by hand and with air and electric power tools called Impactools. With this guide, a truck service shop can evaluate more accurately its present service equipment and determine in advance the actual savings that it may expect through using Ingersoll-Rand air and electric Impactools. Ingersoll-Rand Co., 11 Broadway, New York, N. Y.

144 RADIATOR SERVICING EQUIPMENT — A new 48 page book "Blueprint For Profit" explains big profits servicing radiators, explains the Inland method, illustrates and describes Inland equipment, free factory training school, payment plan, etc. Inland Mfg. Co., 1108 Jackson St., Omaha 2, Nebraska.

145 FREE SAMPLE OF UPHOLSTERY CLEANER FOR AUTOMOBILES — Illustrated 4 page catalog, "Jensen Presents" which gives full information about Jensen's Special Auto Upholstery Foam and how it can profit jobbers, car dealers, and service stations sent with free sample of the product. Jensen Products, 4119 Broadway N. E., Knoxville 17, Tenn.

146 NEW HI-LO LACQUER SOLVENT LITERATURE — Colorful, 8 page booklet, which relates the complete story and practical application of Hi-Lo Lacquer Solvent now available. Attractive literature pictorially tells how to apply to fenders, panels and complete jobs. Included in booklet are prices and descriptions of many outsanding features of the Solvent. Zac-Lac Paint & Lacquer Corp., 350 Simpson St., N.W., Atlanta, Ga.

147 NEW LIGHTING SPECIFICATIONS BOOKLET — Illustrated 12 pages lists all the new American Trucking Association recommendations. Gives uniform specifications for wiring and lighting of commercial vehicles. Write to Signal-Stat Corp., 523 Kent Ave., Brooklyn 11, N. Y.

148 COLORFUL 12 PAGE BOOKLET—Outlines the quality features that make the Silvernode a high profit, low adjustment battery. Explains each feature of battery in detail showing you how you can increase your battery sales. Vitalic Battery Co., 2040 Amelia St., Dallas, Texas.

153 SERVICE MANUAL FK SPARK-PLUGS and how to properly service them is completely described in the new SERVICE MANUAL No. 7K now offered by Champion Spark Plug Co., 900 Upton St., Toledo, Ohio.

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154 **BLUEPRINT FOR PROFIT** — A booklet with case histories of dealers and shops who have increased profits servicing radiators. Information about necessary equipment, tools and supplies needed to set up. — Inland Mfg. Co., 1108 Jackson St., Omaha 2, Neb.

159 **CONNECTING ROD RECONDITIONING** — Bulletin for automotive shops describing a new simplified method of grinding and honing connecting rod caps and bearing bores. It gives operation details and full information about the new model 125 Rodmaster connecting rod grinding and honing machine. The new machine tool fits in small space on a bench and is fast and accurate. Storm-Vulcan, Inc., 2225 Burbank St., Dallas, Texas.

164 **AIRTEX FUEL PUMPS AND ANTI-PULSATION GASOLINE FILTERS** —New and Rebuilt Fuel Pumps, Combination Fuel and Vacuum Pumps, Repair Kits and Anti-Pulsation. Catalog AX68-1 Airtex Automotive Division, Inc., Fairfield, Ill.

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168 **CRANKSHAFT GRINDER MANUAL** a colorful 8-page manual containing engineering, construction and operation details of the new Storm-Vulcan model 15-A Crankshaft Grinder. It is well illustrated for easy understanding, and describes fully the special features and advantages of the new 15-A Crankshaft Grinder designed for fast production and precision. Storm-Vulcan, Inc., 2225 Burbank St., Dallas, Texas.

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185 **SERVICE ENGINEERING BROCHURE** — A new brochure comprised of 14 Service Engineering articles covering oil consumption problems, ring problems, oil control problems peculiar to the modern high compression-high vacuum engines, piston and piston ring nomenclature and several articles on scuffed rings and how to avoid scuffing and scoring. Perfect Circle Corp., Hagerstown, Ind.

186 **AUTO LITE BATTERY SERVICE MANUAL** — An authentic reference and guide for everyone interested in testing and servicing automotive storage batteries. Simply written and thoroughly illustrated, it is so complete in its coverage of the subject that service men and fleet operators will find it easily understandable. Distributed by Auto-Lite Battery Corporation, P. O. Box 931, Toledo, Ohio.

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219 **HOMESTEAD HOISTER** — Folder describing truck and auto front-end lifts, showing many applications of combining speed and safety. Homestead Valve Mfg. Co., P. O. Box 348, Coraopolis, Penna.

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262 **OIL FILTER SELLING AIDS** — Wix-O-Matic the guide to extra profits in oil filter service sales. A revolutionary merchandising concept featuring minimum, controlled inventory, guaranteed sales, perpetual stock control, Dial-O-Matic cartridge selector, cartridge installation charge guide, dealer franchise, plus choice of two eye-catching, money making merchandisers — floor cabinet or wall rack. Ask for brochure giving complete details. Wix Corp., Gastonia, N. C.

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304 **ILLUSTRATED FOUR-PAGE COLOR FOLDER** — Showing the operation and construction features of the new Storm-Vulcan Turbo Blast, a parts and motor block cleaner, with handy specification table. Storm-Vulcan, Inc., 2325 Burbank St., Dallas 9, Texas.

305 **KOTAFIN CRANKSHAFTS INCREASE BEARING LIFE** — A new service booklet, "Stop Bearing Failures," for the benefit of users of reconditioned crankshafts. Booklet clearly shows the cause of most early bearing failures, and how the KOTAFIN process prevents them, also lengthens bearing life. Storm-Vulcan, Inc., 2225 Burbank St., Dallas 9, Texas.

314 **WAGNER BRAKE PARTS CATALOG** — A handy ONE-POINT reference to fast-moving brake parts and lining, covering popular models of cars and trucks. Catalog also lists complete stock of shoe exchange sets, as well as CoMaX bonded lining segments available to those interested in bonding lining in their own shops. Wagner Electric Corporation, 6362 Plymouth Avenue, St. Louis 14, Missouri.

315 **BETTER IGNITION by Delco-Remy** —16-page, 8½ x 11 inch booklet covering theory, operation and maintenance of Delco-Remy ignition equipment. Contains 71 illustrations. Will help automotive electricians understand and service ignition equipment. Delco-Remy Service Department, Anderson, Ind.

320 **NEW DEALER CATALOG OF MOTOR REBUILDING EQUIPMENT** — Features the complete Storm-Vulcan jobber line of engine rebuilding machines. Attractively printed in two colors, punched and slotted for inclusion in jobber salesmen's catalogs. Storm-Vulcan, Inc., 2225 Burbank St., Dallas 9, Texas.

323 **BRAKE LINING** — A new 18 page condensed catalog listing brake lining recommendations for all popular passenger cars, commercial cars, etc. Vehicles are listed by year and model. Recommendations are made both for riveted and for bonded lining. World Bestos Corp., P. O. Box 346, New Castle, Ind.

334 **"STYLENGINEERED LUBRICATION DEPARTMENTS"** — 32 page booklet describing and illustrating various size lubrication departments and the combination of equipment for most efficient and economical operation dependent on available floor space. Lincoln Engineering Company, 5708 Natural Bridge Avenue, St. Louis 20, Missouri.

335 **POWER AND MANUAL LUBRICATION IN THE FIELD** is fully described in Lincoln Engineering Company's new catalog No. 74. Catalog contains all newest types of grease guns, fittings and accessories for fast, clean, economical lubrication of farm machinery. Lincoln Engineering Company, 5708 Natural Bridge Ave., St. Louis 30, Mo.

336 **NEW FILKO IGNITION PARTS CATALOG** — Big 160-page catalog contains complete listings of all Filko Ignition Replacement Parts for practically every make and model of car, truck, bus and tractor. New simplified listings make the new Filko Catalog exceptionally easy to use. F & B Mfg. Co., 4248 W. Chicago Avenue, Chicago 51, Ill.

338 **AUTO LAMP SERVICING GUIDE** — Illustrated and handy reference with replacement charts and instruction for aiming, adjusting, focusing, installing and servicing trucks and auto lamps. Also complete information on servicing directional signal flashers. Tung-Sol Electric Inc., 95 Eighth Ave., Newark 4, New Jersey.

340 **RADIATOR AND WATER CLEANER** — Catalog describing new radiator and water cleaner. Unit easy to install, priced economically, two models fit all cars, trucks and buses. Cartridge easily and quickly changed. Fram Corporation, Rumford Post Office, Rumford 16, R. I.

341 **SERVICE MANUAL FOR AUTOMATIC TRANSMISSIONS** — Details and illustrations for checking level and changing fluid on Hydra-Matic, Dynaflow, Power Glide, Ultramatic, Chrysler Fluid Drive and Hudson Wet Clutch. The Bell Co., Inc., 411 N. Wolcott Ave., Chicago, Ill.

345 **HYDRAULIC BRAKE WALL CHART** — Spiral bound listing up-to-date parts information for passenger cars and trucks, including listings for master and wheel cylinder repair kits, stop light switches and brake hoses. Eis Automotive Corp., P. O. Box 701, Middletown, Conn.

358 **G-E SAFETY LIGHTING SERVICE MANUAL** — Tells how to sell automotive lighting service . . . How to aim headlamps . . . What lamps to stock . . . Fully illustrated and packed with plenty of "Know-how." Inquiry Bureau, Lamp Department, General Electric Co., Nela Park, Cleveland 12, Ohio.

361 **NEW "QUICK REFERENCE" GASKET CATALOG** — Complete, easy-to-find listings of Fel-Pro Gaskets for practically all makes and models of cars, trucks, tractors, buses, etc. New cataloging style makes gasket selection simple and easy. Write for your free copy today. Felt Products Mfg. Co., 1508 Carroll Ave., Chicago 7, Ill.

363 **MOTOR LIFE EXTENSION** — A Tune-Up Digest plus periodic service bulletins on Fuel Pump testing & maintenance, Voltage Regulators and Ignition tune-up. Descriptive information on Fuel Pumps with the Lifetime Bunalon Diaphragm, Fuel Filters and Ignition Parts, Motor Life Extension Institute c/o Kem Mfg. Company, 20-21 Wagaraw Rd. Fair Lawn, N. J.

364 **AUTOMOTIVE SAFETY LIGHTING DEVICES** — A new automotive catalog illustrating reflectors, directional signals, tail lights, stop lights, armored clearance lamps and safety reflector flares—all heavy duty equipment, designed and built for commercial truck and bus use. Grote Mfg. Co., Bellevue, Ky.

370 **EMEROL MFG. CO.** — Complete printed information on entire line: Marvel Mystery Oil, Marvel Inverse Top Cylinder Oiler, Hi-Rev Motor Tune-Up Oil. Shows uses, prices, description, dealer information. Emerol Mfg. Co., 242 W. 69th St., N. Y. 23, N. Y.

383 **TIME SAVING ELECTRIC IMPACTOOLS** — Price list, complete details on electric Impactools, sockets and accessories, and twelve multipurpose uses where Impactools can save up to 90% of time required by hand methods. John K. Uhler, Ingersoll-Rand Co., Phillipsburg, N. J.

389 **"FACTS OF LIFE" — ENGINE LIFE** — 16 page booklet on common engine troubles and corrections, with emphasis on the non-mechanical tune-up. Illustrated throughout. Gives the complete story on oil additives, also selling tips and instructions for use. Caslite Division, Hastings Manufacturing Co., Hastings, Michigan.

407 **A B C's OF SAFE PROFITABLE TIRE SERVICE** — A 24 page book just published by Bowes "Seal Fast" Corp. Complete with illustrations and how-to-do-it instructions. Outlines latest tube and casing repair techniques as well as reconditioning trade-ins for profitable resale. Bowes "Seal Fast" Corp., 147 North Pine Street, Indianapolis 2, Indiana.

410 **NEW AIR BRAKE MAINTENANCE BULLETINS** — Series of bulletins each devoted to a single unit. Fully illustrated with cross sectional, exploded and schematic drawings explaining every phase of the operation and maintenance. Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo.

416 **TAIL PIPE REPAIR KIT** — A four page color catalog describing the Quaker heavy gauge, seamless tail pipe repair kit. Four sizes to fit all cars. Quaker Supreme Chemical Corp., 315 Whitman St., Montgomery, Alabama.

420 **SIOUX TOOLS**—Illustrated and descriptive condensed 18 page Catalog No. 109-D of SIOUX Portable Electric Tools for Automotive repair and maintenance. Albertson & Company, Inc., 3100 Lowell Ave., Sioux City, Iowa.

421 **THE KEY TO MORE LUBRICATION SALES—AND REPEAT DOLLAR SALES** — 4 page booklet gives advantages of the use of 100% degummed Castoroil, compares Castoroil with ordinary oil and chemicals, and gives examples of success achieved by its use. Castoroil Products, Inc., 15 William St., New York 5, N. Y.

7/56

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Please be sure to fill in your Firm's Name and your position on the Coupon. This service cannot be extended to you unless this information is complete.

NEW PRODUCTS AND CATALOGS

800—Hose Retractor

A gasoline hose retractor designed to prevent excess slack in the hose during use and to aid in return of the hose to pump after use has been introduced by Aro Equipment Corp., Bryan, O.

The unit weighs 5 lbs. and is 6" high, 6¾" long x 2¾" wide. The flat

mounting base is approximately 4 x 4¾". It may be mounted several ways, depending on pump type. The assembly is furnished with 9' of nylon-covered steel cable and a nylon grommet. A hose clamp assembly and hose clamp boot are available as accessories. Spring tension can be easily adjusted.

Want more info? Use coupon on page 118 and you will get it!

801—Tubeless Repair Booklet

A booklet, "It's Easy to Repair Tubeless Tires," which outlines general instructions and describes ordinary methods and materials used in repairing tubeless tires, has been published by the Association of Independent Manufacturers of Tire and Tube Repair Materials, P. O. Box 7121, Tulsa 18, Okla.

The various methods of repair are given full consideration in alphabetical order. The two exceptions to conventional methods, employed on ordinary tires and also applicable to the tubeless, are also noted. The text has been approved by all members of the association.

Want more info? Use coupon on page 118 and you will get it!

802—Battery Manual

A dealer sales manual including complete information on 12-volt and dry-charged batteries, specifications and replacement data, plus a complete line of battery chargers and testers for service station use, has been published by Exide Automotive Division, P. O. Box 8109, Philadelphia.

Want more info? Use coupon on page 118 and you will get it!

803—Tubeless Vulcanizer

A tubeless tire vulcanizer constructed of steel and ductile castings, which occupies one square foot of space, has been announced by Big Four Industries, Inc., 5938 Carthage Court, Cincinnati, O.

The machine comes equipped with contour and shoulder plates, valve adapter and flat plates. Its two elements have thermostatically controlled units.

Want more info? Use coupon on page 118 and you will get it!

Make hard jobs EASY

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Universal Wheel Puller, forged from chrome-nickel alloy. Serves 98% of all cars and light trucks. Tougher lasts longer.

T-500 A

Universal Wheel Puller Adaptor converts any stud-type puller for Ford service.

T-124

2-Ton Car and Truck Stand with quick-adjusting ratchet. Can't release by accident. Forged, non-tip base.

T-125

7-Ton Car and Truck Stand. All features of 2-ton model.

SEE YOUR JOBBER on the complete line of *Job-Designed* Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. THE KEN-TOOL MFG. CO., AKRON 5, OHIO.

JOB-DESIGNED KEN-TOOLS

TIRE-CHANGING TOOLS KNOWN, USED AROUND THE WORLD

804—Paint Additive

A paint additive designed to permit spray painting over any residual patches of silicone or wax left on car bodies after preparatory cleaning has been announced by Walbern Laboratories, 2220 East Logan, Decatur, Ill.

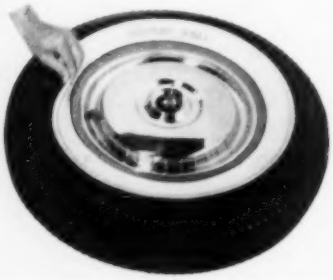
One dropperful of "Even-Cote" mixed with each quart of prepared lacquer or synthetic enamel reportedly improves flow-out and gloss while eliminating "orange peel" and "fish-eyes." Bleed-through of road-oil or tar is also prevented, it was claimed by the company.

Want more info? Use coupon on page 118 and you will get it!

805—Sidewall Converters

All-latex rubber discs for converting black tires to white sidewalls without cementing, sanding or special tools have been announced by Kraco Products, Inc., 1797 W. Adams Blvd., Los Angeles 18, Calif.

Installation may be made by deflating the tire and breaking the



bead, inserting the inner edge of the "Custom Wall" between the wheel and tire and inflating the tire. Installation time is said to be about 25 minutes per car and may be done while the wheel is mounted on the car. Available in standard and extra width sizes, the grip-on sidewalls reportedly hug the tire with great tension with no whistling at high speeds. They clean like an ordinary whitewall, the manufacturer said in his announcement.

Want more info? Use coupon on page 118 and you will get it!

806—Parts Cleaner

A cleaner which is said to remove ordinary grease and gum from parts in a matter of minutes, while heavier deposits are stripped off in about five hours, has been announced by Rust Master Chemical Corp., 56 Creighton St., Cambridge 40, Mass.

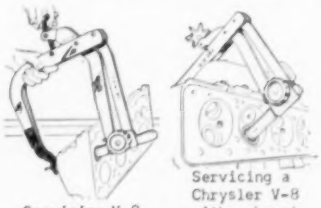
Normally a cold immersion solvent, faster results can be obtained with "Parts Master" by applying a small amount of heat, it was claimed. The compound is made non-inflammable by a chemical seal which remains on top of the liquid when not in use, eliminating evaporation and sealing in troublesome vapors. It is said to strip all carbon and sludge deposits from metal parts but will not etch soft metals. Parts are left like new after a rinsing of water or kerosene, according to the manufacturer.

Want more info? Use coupon on page 118 and you will get it!

807—Valve Spring Compressor

A valve spring compressor for servicing old or new L- and valve-in-head engines, said to be specially designed for easy working in close quarters and for servicing valves on all 1956 Chrysler, DeSoto, Dodge and Plymouth V-8's with exhaust manifolds in place, has been introduced by K-D Mfg. Co., 526 N. Plum St., Lancaster, Pa.

Adjustable plunger bar with operating hand wheel on the back of the



Servicing V-8 cylinder head.

Servicing a Chrysler V-8 with exhaust manifold on.

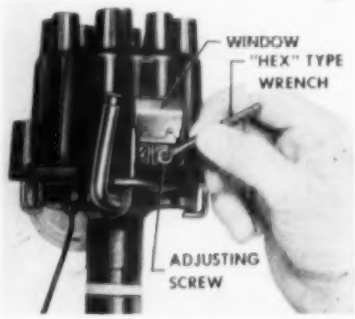
frame reportedly makes possible a wide range of adjustments to service valves of all lengths. With the throat opening of 9¾", it is possible to span the manifold and service all valves without changing position, according to the company. Interchangeable offset and straight jaws are furnished.

Want more info? Use coupon on page 118 and you will get it!

808—Ignition Distributor

An external adjustment ignition distributor, reported to combine increased timing accuracy for high-compression engines with ease of servicing, has been introduced by the Delco-Remy Division of General Motors Corp., Anderson, Ind.

Contact point opening, or dwell angle, may be adjusted through a



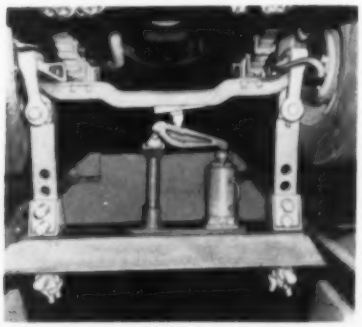
"window" while the engine is running without removing the cap, requiring only the use of a "hex" wrench, the manufacturer said. Contact points are replaced as a unit by removal of two attaching screws. The points are aligned and the breaker lever spring tension set at the factory. Distributor cap is said to be easily removed by turning two spring-loaded latches with a screwdriver. A one-piece, concentric bearing breaker plate insures smoother vacuum advance performance, permitting increased fuel economy, according to the company.

Want more info? Use coupon on page 118 and you will get it!

809—Axle Press

A super-heavy-duty axle press reported to develop up to 200 tons pressure concentrated in one spot to straighten the axle where the correction is needed has been announced by Bear Mfg. Co., 2016 Fifth Ave., Rock Island, Ill.

Hook-ups are made on the vehicle without dismantling or reassembling



the axle. Chamber may be increased on both wheels individually or simultaneously. Attachments pull either end forward or push it back and, for caster corrections, permit twisting of the axle in either direction. All holding work is done by yokes and connectors made of special alloy steel. Through use of a kit available from the company, the axle press may be added to heavy duty Bear racks now in use.

Want more info? Use coupon on page 118 and you will get it!

810—Bumper Exhaust

A bumper exhaust made of triple chromed, heavy gauge steel, which reportedly fits snugly against the bumper for the custom look, has been announced by Badger Tool & Mfg. Co., Inc., 1501 W. Polk St., Chicago, Ill.

The over-all length of 8" reportedly permits tailpipe entry to mouth of

exhaust opening. A kit for conversion of single-exhaust system to dual is also available. The "Duo" is said to be universal for all cars.

Want more info? Use coupon on page 118 and you will get it!

811—Service Accessories

Four models of timing lights and five compression testers, developed to meet the requirements of faster and more accurate shop service, have been announced by Allen Electric & Equipment Co., 2101 N. Pitcher St., Kalamazoo, Mich.

"Powr-Timer," the de luxe timing light, automatically operates on six- or 12-volt ignition systems and reportedly provides a usable brilliant light even under direct lighting. Made of plastic, its light weight and pistol grip make it easy to handle.

The de luxe "Hi Compression" tester features one-man testing, according to the company. The seal is inserted in the spark plug opening and starter solenoid is actuated with a button on the handle. Another model has screw-in adapters said to require no wrenches and will fit 14mm, 18mm, or ⅞" plug openings.

Want more info? Use coupon on page 118 and you will get it!

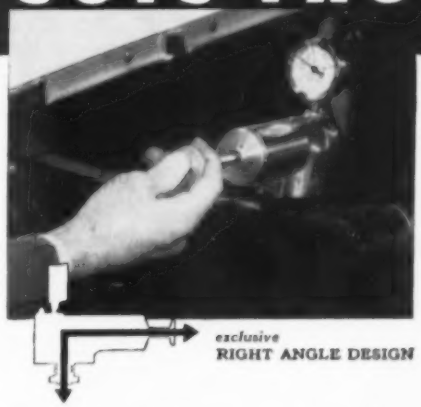
812—Air Brake Hose

An air brake hose of molded neoprene and reinforced rayon braid construction, said to resist oil, grease, heat and the deteriorating effects of strong sunlight and to meet all S.A.E. standards, has been announced by Automotive Replacement Division, Thermoid Co., Whitehead Rd., Trenton 6, N. J.

Standard air brake couplings reportedly will fit this hose and can be applied readily because of the smooth cover and bore. It is supplied in self-dispensing octagonal cartons containing 250' of hose.

Want more info? Use coupon on page 118 and you will get it!

New Stant tester sets the pace!



precision-tests whole cooling system

Stant's new Pressurized Cooling System Tester proves that Stant's interest has always been as broad as the cooling system. Since 1924 car manufacturers and the aftermarket have recognized Stant leadership and broad perspective. So, Stant now offers an instrument for checking every element of the cooling system . . . sales builder for hose, fittings, thermostats, chemicals, gaskets and caps. *Car and truck owners will appreciate this service!*

money-making tool

An accurate rugged instrument for long trouble-free service with years of engineering research behind it. *Exclusive Stant features:* wear-proof, accurate cams and cam lugs . . . convenient right angle design . . . accurate, no-guess-work, fool-proof gauge . . . manual relief valve . . . heavy cast adaptors. Write for catalog today!

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RADIATOR • GAS • OIL
CAPS

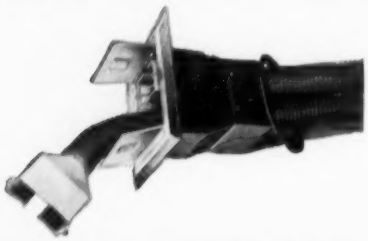
STANT MANUFACTURING CO., INC.
Connersville, Indiana

Used on America's Finest Automobiles as Standard Equipment for a generation

813—Underfloor Exhaust

An underfloor exhaust unit with a 3" hose for safely servicing single- or twin-exhaust cars has been announced by Car-Mon Products Co., 4552 N. Broadway, Chicago 40, Ill.

A 2-door floor plate reportedly provides full ventilation safety,



whether one or both outlets are being used. When servicing single exhausts, the closed door over the unused outlet maintains full draw-off from the outlet in use, it was claimed. Made of non-crushable neoprene, the hose is said to withstand temperatures of 0° to 300° F. and to resist corroding effects of fumes, moisture and heat. The adapters are stainless steel. Hose and adapters retract into the floor plate, permitting the double-doors to be closed tightly.

Want more info? Use coupon on page 118 and you will get it!

814—Pre-Paint Cleaner

A pre-paint cleaner designed to remove wax and silicones from car bodies prior to repainting has been introduced by Permacel Tape Corp., State Highway No. 25, New Brunswick, N. J.

Used prior to repainting, "340 Bite" reportedly cleans a surface by dissolving oil, grease, gummy substances, wax and silicones, while at the same time microscopically etching the surface so that new finishing materials will bond properly.

Want more info? Use coupon on page 118 and you will get it!

815—Light Reels

Overhead light-lube reels in one unit and designed for installation at 96" height to place bright light under cars on hoists, have been announced by Grover Mfg. Co., 850 East Valley Blvd., San Gabriel, Calif.

The narrow reel housing permits installation in locations between roll-

up door track without interference, it was claimed. The fixture will accommodate eight reels in a single tier, or 12 outlets by placing four additional reels on second tier mounting. Any smaller number of reels can be installed initially and others added later, according to the company. Dimensions are 72" x 34" x 18"; reel housing width 12½"; weight 160 lbs. It uses four slim line fluorescent lamps.

Want more info? Use coupon on page 118 and you will get it!

816—Door Repair Panels

A series of door repair panels designed to simplify repairs on Buick and Oldsmobile convertibles and hardtops has been introduced by Graver Industries, Inc., P. O. Box 4027, Cleveland 23, O.

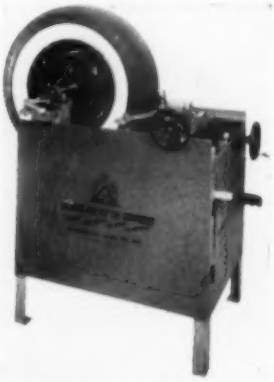
The "E-Zee-On" panels are available for all convertible, two-door and four-door hardtop Buick Specials and Centuries made in 1954, 1955 and 1956, also Oldsmobile hardtops and convertibles in the De Luxe, Super and Holiday groups made in 1954, 1955 and 1956.

Want more info? Use coupon on page 118 and you will get it!

817—Tire Conditioner

A tire conditioner which reportedly trues, regrooves and de-skids, removing the right amount of rubber for proper rounding in the truing operation, has been introduced by Big Four Industries, Inc., 5938 Carthage Court, Cincinnati, O.

All parts are said to be factory-tested. The conditioner requires no



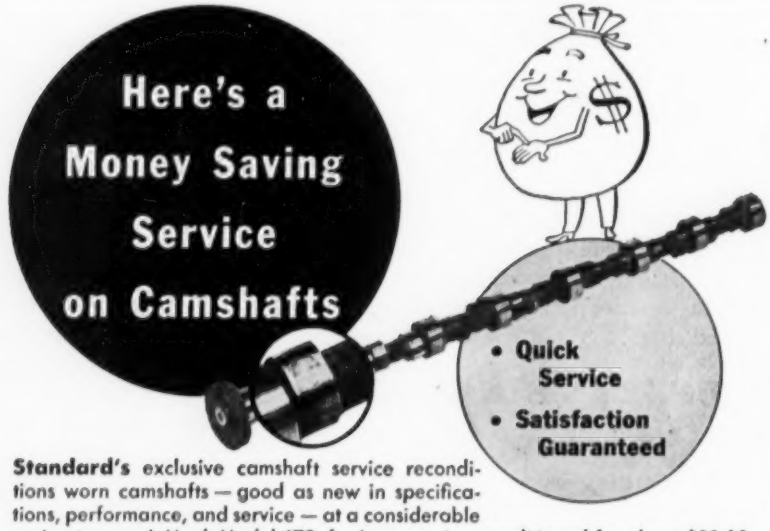
additional wiring and may be moved if necessary, it was claimed. It is 32½" long, 22½" wide, 38¾" high in the front and 39⅜" high in the rear.

Want more info? Use coupon on page 118 and you will get it!

818—Engine Bearing Manual

A comprehensive, 100-page "Mechanics' Engine Bearing Reference Manual," dealing with performance analysis, maintenance, service, bearing types, selection and installation, and related subjects, is offered, free, to automotive jobbers and repair and maintenance shops by Clevite Service, 6545 Carnegie Ave., Cleveland, Ohio.

Want more info? Use coupon on page 118 and you will get it!



Standard's exclusive camshaft service reconditions worn camshafts — good as new in specifications, performance, and service — at a considerable saving to you. A Mack Model 672, for instance, is reconditioned for about $30.00.

Standard's "Chromaloy" process and technique have been thoroughly tested and proven on hundreds of thousands of camshafts of all sizes. Some of America's largest truck transportation firms have been using this service without a single failure of any kind.

Let us give you full details and prices, or send us a worn camshaft to recondition.

Standard Crankshaft and Hydraulic Co., Inc.

117 Southside Drive, Charlotte, N. C., Phone EDison 3-5122

819—Portable Jack

A 44-lb. mechanical one-end bumper lift with a 1½-ton capacity, equipped with wheels for easy positioning and complete maneuverability, has been announced by Blackhawk Mfg. Co., 5325 West Rogers St., Milwaukee 1, Wis.

The "Jeep-Jack" features "flip-fit" double adjustable saddles which

quickly flip to either of two basic positions with full lateral movement in either position, permitting easy lifting of one end or one wheel, it was claimed. The handle is fully adjustable and the built-in brake controls lowering.

The jack is now available on the automotive market.

Want more info? Use coupon on page 118 and you will get it!

820—Fuel System Chart

A 17" x 22" wall chart printed in three colors, pinpointing the seven most common symptoms of fuel system trouble—worn rocker arm pin, worn rocker arm pad, punctured vacuum diaphraghm, worn linkage,

defective valve cage assembly, worn pull rod, and worn fuel diaphraghm—is available, without charge, to automotive parts jobbers, garages, fleet shops and other service outlets from Airtex Products, Inc., Fairfield, Illinois.

Want more info? Use coupon on page 118 and you will get it!

821—Spring Insert Kit

A spring insert assortment said to give complete insert coverage, at minimum cost, for all cars beginning with 1949 models through 1956 has been announced by Mono-Flex Spring Division, Davis Auto Equipment Co., Reading, Pa. Each assortment contains full catalog information and selling prices.

Want more info? Use coupon on page 118 and you will get it!

822—Diesel Starting Device

A diesel starting device said to be capable of assuring a quick start with all types of diesel engines in from two to five seconds, at temperatures down to —70°F., has been announced by Start Pilot Corp., 258 Herricks Road, Mineola, N. Y.

"Start Pilot" is a small, compact unit, consisting of a double-action air pump, fuel and moisture chambers. Said to be easily installed, the unit can be mounted on the dashboard of any industrial equipment powered by a diesel engine. It can also be used on large gasoline engines for industrial truck or marine uses, the manufacturer said. Fluid is supplied in aluminum throw-away capsules, sealed in cold-pressure welding, and is not affected by low temperatures.

Want more info? Use coupon on page 118 and you will get it!

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CYLINDER HONE

• BIG RANGE
2 11/16" to 4½"

• EXTRA STONES
available for cylinders 2.6" to 10 inches

• MICROMETER FEED

• INSTANT EXPANSION
with Rack and Pinion mechanism which holds STONES RIGID & PARALLEL

• LONGER STONES
hone faster, wear longer

• In metal case, complete with accessories.

Model CH45

ASK YOUR JOBBER for the Lisle CH-45

it's a good tool...it's a Lisle

LISLE CORPORATION
Clarinda, Iowa

823—Transmission Jacks

Transmission service jacks, available in three models, for all transmission repair needs, have been announced by Blackhawk Mfg. Co., Milwaukee 46, Wis.

The Model T-1 "Lo-Matic," designed for floor service, reportedly "floats" transmissions safely in any direction. "Floating lift" clears frame cross members and transmissions can be lowered and raised all the way while tilted, according to the company.

Models T-2 and T-3 serve cars standing on two-post lift or over a pit. Special positioning carrier tilts forward 28°, backward 10°, right and left 13°, and also slides laterally 3". All models are equipped with "all-make" adapter which is said to fit any automatic or conventional car and truck transmission up to 500 lbs., including '53 Powerglides and later.

Want more info? Use coupon on page 118 and you will get it!

"No, sir! It's not deceptive advertising. We said 'running condition'—nothing about 'how far'."

824—Car Desk

A folding portable desk designed for use in the car to provide a level or tilted writing surface large enough for portfolios or notebooks, also for food, has been announced by Artistic Wirecraft Mfg. Co., 1409 Kansas Ave., Kansas City, Mo.

Made of lightweight masonite, the "Car SecreTray" is 12" x 19", with folding steel base said to anchor easily under back of either front or rear seat. It folds flat for storage under the front seat of most cars. The top tilts and locks in five positions, or it can be used level.

Want more info? Use coupon on page 118 and you will get it!

825—Headlamp Aimer

A modified version of the "Guide T-3 Safety-Aimer," reportedly designed for quick, accurate adjustment of truck as well as car headlamps that require specific beam angles and said to satisfy all state requirements, has been announced by AC Spark Plug Division of General Motors, 1300 N. Dort Highway, Flint 2, Mich.

Featured on the aimer is a compensator dial for calibrating proper beam drop which reportedly assures exact beam angle without the aid of costly aiming machines and large darkened areas. The beam angle is set by moving the dial to the number corresponding to the drop in inches required in 25'.

The aimers fit over three precision-ground guide points. Only a screwdriver is needed. Headlamps can be properly aimed in less than ten minutes in broad daylight without the lights on, it was claimed.

Want more info? Use coupon on page 118 and you will get it!

826—Clearance Light

A clearance light with a shockproof rubber body for use on trucks, trailers and tractors has been introduced by Auto Lamp Mfg. Co., 2909 South Indiana Ave., Chicago 16, Ill.

Flexibility of the rubber rim is said to permit easy snap-in and snap-out replacement of the 2½" lens, and assures waterproof and dust-proof protection for the wiring. Lenses are available in glass or shatterproof plastic in red, amber, blue, green and clear. The rubber and fabric strap-mounting between lamp and installation bracket allows a wide range of convenient positions. Lights are available for either six-eight-volt or 12-16-volt systems and come complete with 3cp. bulb and all wiring.

Want more info? Use coupon on page 118 and you will get it!

827—Anti-Freeze Tester

An anti-freeze tester said to enable servicemen to make tests faster and more accurately, without waiting for the motor to cool, has been announced by E. Edelmann & Co., 2332 West Logan Blvd., Chicago 47, Ill.

The "Magic Eye Freez-D-Tector" features a built-in plastic magnifying lens that triples the size of freezing-point figures on the chart. In addition, the tester uses only a single chart for all ethylene glycol and methanol types of anti-freeze solutions. Imprinted on the Bakelite housing are tables showing initial fill, add-a-quart and radiator capacities. A wide base permits the unit to stand upright and metal guard rails protect the glass jar.

Want more info? Use coupon on page 118 and you will get it!

828—Transmission Pliers

Parallel action spreading pliers for removing synchronizing and snap rings in automotive transmissions have been introduced by Utica Drop Forge & Tool Corp., Utica 4, N. Y.

The parallel action of the tool, together with the recess in the forged tip, will prevent rings from slipping.

Want more info? Use coupon on page 118 and you will get it!

829—Power Drills

Two electric drills which include ultra-long switch handles for better balance and ease of handling, plus a more powerful motor, have been announced by Thor Power Tool Co., 175 N. State St., Aurora, Ill.

"Model 25" has a ¼" capacity in steel, ½" in wood. The universal-series wound AC or DC motor runs at no-load speed of 2200 rpm and 1400 rpm under full load on standard 115 volts. It has a 6' 3" conductor-type lead cord and a momentary contact switch with locking pin. Special 32-volt or 320-volt motors can be furnished optionally, according to the manufacturer.

"Model 26" is identical in capacity, performance and specifications, but is equipped with specially designed and constructed bearings. It weighs 4½ lbs.

Want more info? Use coupon on page 118 and you will get it!

HOW to Win a Muffler Argument

"why change . . . my old muffler's good enough for me."

Well, why not point out the advantages of changing to Porters next time you're confronted by that "ostrich" answer. Tell your customers how softer-toned Porters . . . *give greater power, better mileage, more economy, reduce back-pressure to provide smoother running engines.*

Porter Dealers say their sale of Porter Quality Exhaust products is one of the most profitable in the entire field of automotive products. They earn a substantial profit margin on each sale. And they benefit by the peerless integrity and the nationwide reputation of the name that is "First in Mufflers." There's good profit in selling Porters . . . Write today for details of the Porter Profit-Making Sales Plan.

PORTER MUFFLER MANUFACTURING CO., Inc.
11820 West Olympic Blvd., Los Angeles 64, California

SALES Porter SERVICE PORTER

FIRST IN MUFFLERS

830—Self-Vulcanizing Patch

Self-vulcanizing patches for both tubeless tires and inner tubes said to become a permanent part of the tire or tube the instant they are applied have been introduced by Kex Products Inc., 4400 St. Vincent Ave., St. Louis, Mo.

Reported to be used successfully with all types of patching cement or vulcanizing fluid, "Kex" patches have a cured rubber top layer permanently bonded to a semi-cured self-vulcanizing layer. A patented molding process shapes the patch for maximum strength and assures perfect blending of the cured and uncured rubber all the way out to the feathered edge, the manufacturer said. Each patch is protected by a metal foil cover on the uncured side and a moisture-proof backing on the cured side. They are said to be highly resistant to deterioration.

Want more info? Use coupon on page 118 and you will get it!

831—Snap-On Rocker Panels

Snap-on rocker panels which are die-cut to fit over rusted panels without cutting or welding and reportedly can be installed in less than half the time required for original equipment, have been introduced by GorDag Rocker Panel Corp., 2215 Foshay Tower, Minneapolis 2, Minn.

Two operations are necessary: First, the molding and scuff plate are removed; then, with scuff plate for a template, screw holes are easily

punched for its replacement. Holes for clips to replace sill molding are already punched. The panels are packed in pairs with six right side and six left side in each bundle. They are available for all makes and models of cars.

Want more info? Use coupon on page 118 and you will get it!

832—Cold Solder

A 14-page, four color "how-to" folder containing a section on repair and maintenance uses of its cold solder in automobile body shops, with prices included, is available upon request from Atomized Materials Co., Inc., KwikMetal Division, Rauch Bldg., Pittsburgh 5, Pa.

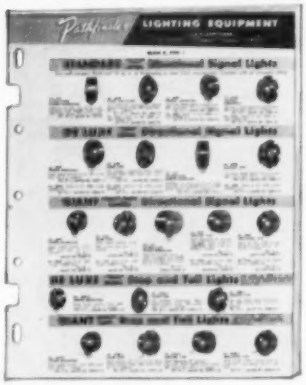
"KwikMetal" cold solder is a metallic filler which requires no mixing, heat, chemicals or special equipment, it was claimed. It is applied from the can like putty and reportedly dries to a hard metallic finish ready for sanding and painting.

Want more info? Use coupon on page 118 and you will get it!

833—Lighting Catalog

A complete catalog of "Pathfinder" heavy-duty directional signal lights for trucks, tractors, trailers and buses, illustrated in three colors showing the red or amber lenses and including signal sets with switches, truck directional switches and a complete line of de luxe and giant stop and taillights, has been published by Auto Lamp Mfg. Co., 2909 Indiana Ave., Chicago 16, Ill.

Want more info? Use coupon on page 118 and you will get it!



The PIONEER Tool
FOR INSTALLING VALVE SEAT RINGS

The Biggest Seller

THE FIRST . . . and still the MOST POPULAR, MOST PRACTICAL, SIMPLEST, MOST UNIVERSAL tool of its kind made.

EVERLASTING . . . the first tools made over 25 years ago are still in service.

K. O. LEE COMPANY
ABERDEEN, SOUTH DAKOTA

EARN BIG PAY
Earn While You Learn
DIESEL MECHANICS, AUTO MECHANICS
WELDING, BODY AND FENDER REPAIR

Train in our modern shops.
You learn with tools on real equipment.
Master a trade with a real future.
Many of our graduates earn $100 per week and up.

THOUSANDS OF MECHANICS NEEDED!

*50,000 NEEDED
The nation's requirements for new mechanics now is nearly 50,000 a year, as motor vehicle registrations begin mounting beyond 60,000,000. It has been estimated that mechanics graduating from schools number only around 10,000 a year.
*Southern Automotive Journal for January, 1956

- DAY AND NIGHT CLASSES APPROVED FOR VETERANS
- WRITE FOR FREE BULLETIN DEPARTMENT NO.7

NASHVILLE AUTO-DIESEL COLLEGE
226 7th Avenue, North, Nashville 3, Tennessee

This is the new home of Standard Parts Co. in Columbia, S. C. It measures 100 by 128', plus 2,800 square feet of upstairs space, including 1,500 for offices. The 80' counter has 2,000 square feet of space in front of it for displaying equipment and for customer passageway. The stockroom floor is 16' below the bottom of the roof-supporting rafters to permit addition of another floor if needed some day. W. L. Boyd heads up the company, which is connected with Genuine Parts Co., Atlanta. Billy Boyd, the manager, commented: "Business has been plenty good since our move because we have so much better parking facilities."

Jobber News

(Continued from page 63)

Alabama Firm Ups Two; Plans Expansion

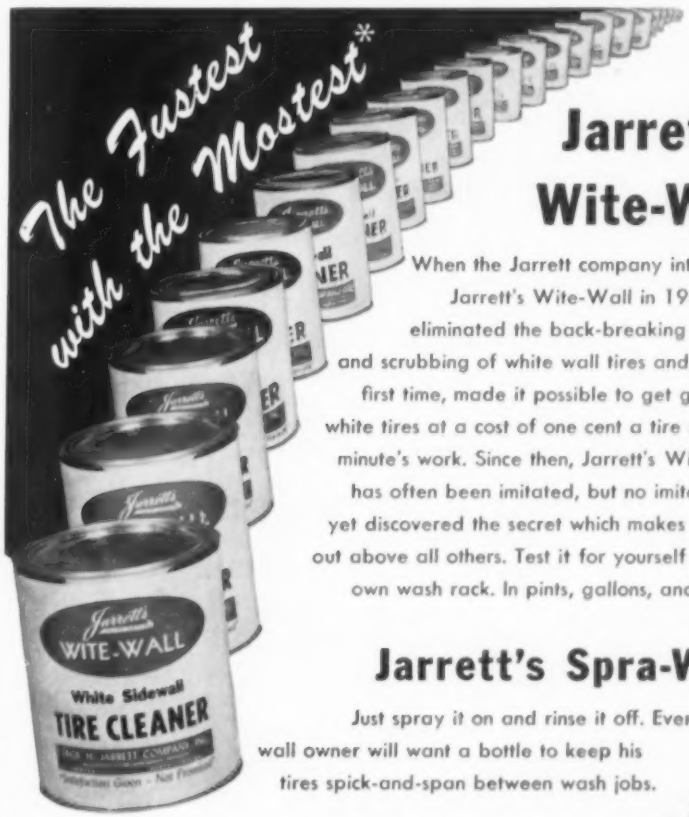
THOMAS Weaver succeeded Jimmy Warren, who was drafted, as manager of Craig Supply Co.'s No. 2 store in Tuscaloosa, Ala., Joe A. Craig, co-owner and general manager, announced. "Shuck" Lullar succeeded Weaver as sales manager.

Plans for concentration on the sale of more tailpipes and mufflers in the future were also announced by Craig, who stated, "We hope to build a new warehouse in the next 90 days to take care of our new program."

"We recently took on **Sorb-it- oil** absorbent, and we have met with such success with it that we are now purchasing it in truckload lots," **Joe A. Craig**, co-owner and general manager of **Craig Supply Co.**, Tuscaloosa, Ala., reported.

* * *

"Our new counterman is **Corwin Coker**," announced **B. L. Thompson**, owner of **Thompson Motor Parts**, Arcadia, Fla.



Jarrett's Wite-Wall

When the Jarrett company introduced Jarrett's Wite-Wall in 1949, they eliminated the back-breaking rubbing and scrubbing of white wall tires and, for the first time, made it possible to get gleaming white tires at a cost of one cent a tire and one minute's work. Since then, Jarrett's Wite-Wall has often been imitated, but no imitator has yet discovered the secret which makes it stand out above all others. Test it for yourself on your own wash rack. In pints, gallons, and drums.

Jarrett's Spra-Wite

Just spray it on and rinse it off. Every white wall owner will want a bottle to keep his tires spick-and-span between wash jobs.

Get Acquainted with Jarrett's Car Appearance Products

Wite-Wall	Kolor-Nu	De Greasol
Spra-Wite	Super Car Wash	Kwik
Tire-Brite	Super Duper Car Wash	Plasto
D-Ice	Fast Suds	Golden Concrete Cleaner
	Fresh An' Clean	

*We know that General Forrest used better English.

Write for information, prices, and the name of your nearest Jarrett Jobber.

Jarrett's TRADE MARK REG.

Satisfaction Given - Not Promised

CECIL H. JARRETT COMPANY, INC.

MANUFACTURERS OF CAR APPEARANCE PRODUCTS • NEWTON, N. C.

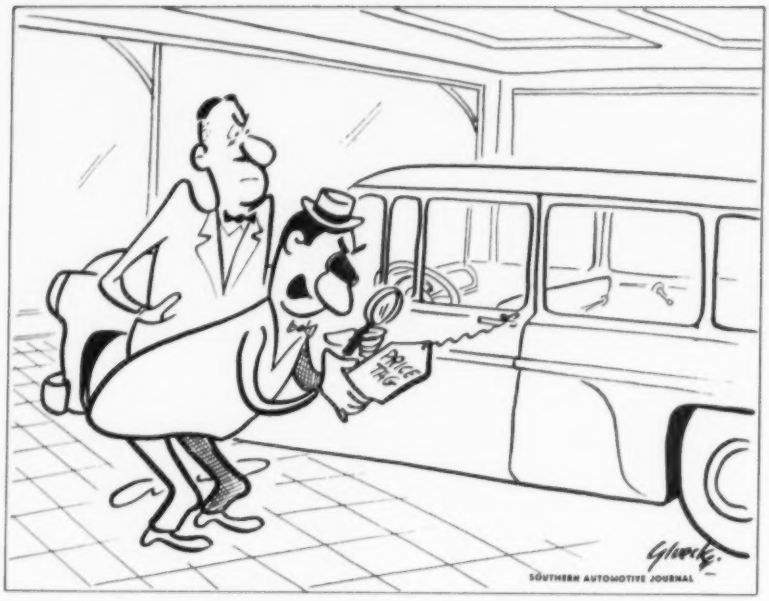
Connett of New Orleans Elected by AERA

LEONARD Connett of Piston Ring Service Co., New Orleans, La., was elected second vice-president at the annual convention of the Automotive Engine Rebuilders Association in Chicago last month. For many years he has operated a large engine shop and has participated in panel discussions and presented papers at AERA meetings.

Other officers elected included Harry A. Torgis of A. L. Torgis & Son, Toronto, Ont., who was elevated to the presidency from first vice-president; Fred A. Lambert of Lambert Co., Ltd., Los Angeles, who moved up from second to first vice-president, and Charles W. Yount, Eagle Machine Co., Indianapolis, who continues as the veteran treasurer.

R. G. Patterson is the long-time executive vice-president of the AERA.

Attendance topped all previous records in the 34-year history of AERA, with more than a thousand members and guests from almost every state as well as four foreign countries.



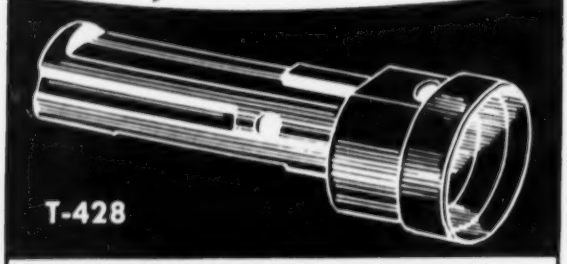
"I'm looking for hidden profits, price packing, phantom freight, profiteering . . ."

Convention slogan was "Keep Pace with the Horsepower Race."

Among the directors chosen for a three-year term was W. P. Smith of Womwell Automotive Parts Co., Lexington, Ky.

The 1957 convention will be held May 12-15 at the Sheraton-Cadillac Hotel, Detroit, it was announced.

THE BIG ITEM of the MONTH
Automatic Transmission Parts



T-428

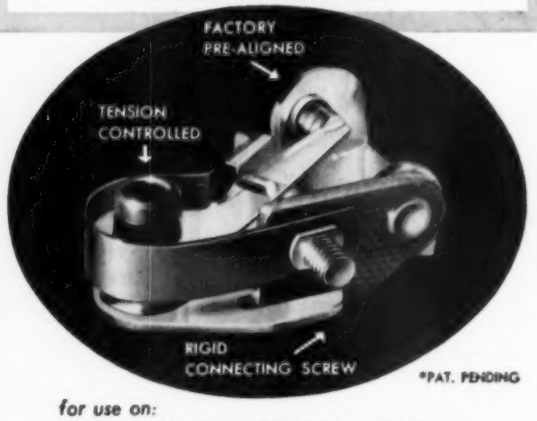
OUTPUT SHAFT OIL SLEEVE

FORD-O-MATIC 1951-1956
MERC-O-MATIC 1950-1954

Our Products are "Transmission Engineered" and identified by the big

TRAMCO INDUSTRIES, INC.
43 WEST 61st ST., NEW YORK 23, N. Y.

"KEM 1-PIECE POINT SETS*
"A CINCH TO INSTALL"



*PAT. PENDING

for use on:
BUICK, OLDSMOBILE, PONTIAC, CADILLAC, CHEV-V8 and others.

KEM IGNITION SINCE 1920 FUEL PUMPS
KEM MANUFACTURING CO., INC.
FAIR LAWN, NEW JERSEY, U. S. A.
Cable: Kemsales Fairlawnnewjersey

The AC prize-winning trip to Acapulco, on Mexico's western coast, produced some fine proof of the fish to be caught in those waters. In the larger picture you see (l. to r.): J. C. Hamilton, Jr., of J. C. Hamilton Co., Tulsa, Okla.; John Jupe of Jupe Motor Supply, Amarillo, Texas (and his 90 pounder); Bill Johnson of Ferguson Auto Supply, Lubbock, Texas (and his 105 pounder), and Cliff Connor of J. C. Hamilton Co. In the smaller photo is Tracy Garrett of Jupe Motor Supply.

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Nine Southerners Join As NSPA Members

NINE southern wholesalers were among the additional 37 firms elected to membership since March 23 by National Standard Parts Association. Prior to that date, 76 members had been added this year.

"These latest additions to the NSPA roster bring the association's membership to an all-time high and add immeasurably to its industry-wide representation as the oldest and largest trade association in the automotive service industry," Vice-President J. L. Wiggins said.

New southern members are: Ellis Parts Co., San Angelo, Texas; B. H. Heinen Auto Supply, Fredericksburg, Texas; Levelland Auto Supply, Levelland, Texas; Machotka Auto Supply, Odessa, Texas; The Meggs Co., Dallas, Texas; Texas Auto Parts, Odessa, Texas; H. R. Thompson Parts & Supply, Pampa, Texas; Armstrong Co., Knoxville, Tenn., and Kentucky Automotive Supply Co., Frankfort, Ky.

"**Sunnen** crankshaft grinders and rod regrinders have been added to our shop," reported **John D. Gift**, owner of **Dunbar Motor Parts Co.**, Dunbar, W. Va.

OVER 1/3 BILLION VALVE CORES have been made by ACME

Over 1/3 of a *billion* Acme Valve cores have been **sold** . . . proving that tire servicemen agree with the high rating given Acme cores by a leading independent laboratory.

Acme cores will pay off for you . . . a million times over!

Manufacturers of valve cores • valve caps • air chucks • air hose couplers • air hose • couplings • vulcanizers • airline, pencil, tractor, & service tire pressure gauges • air storage tanks • shur-call driveway signal & tubing • tank valves • valve tools • fishing tools • blow guns • nozzles • repair valves • rubber valves • drain cocks • screw fittings. *Write today for our complete, new catalog.*

ACME *for Accuracy*

ACME AIR APPLIANCE CO., INC.
100-120 Hinsdale St., Brooklyn 7, N. Y.

Wagner Consolidates Under P. C. Ford

CONSOLIDATION of automotive and electrical engineering and research facilities under the direction of P. C. Ford, newly appointed executive engineer, has been announced by Wagner Electric Corp. St. Louis, Mo.

Under the new organization, C. E. Widell has been named director of research and development; P. J. Reese, assistant director of research and development, and E. E. Wallace, chief product engineer, automotive and industrial brake products. W. R. Freeman, who was chief automotive engineer, has been made consulting engineer on automotive product design and research and development for the company.

First NSPA President Dies

Arthur T. Haugh, first president of the National Standard Parts Association, in 1924-25, died recently in Hillsdale, Mich., after an extended illness.

"We're trailing behind last year and the boss is after my scalp. So . . ."

"We have added **Milwaukee** electric tools to our line recently and their **'Sawzall'** is 'red hot,'" reported **G. K. Linkous**, owner of **Link's**, Danville, Va.

Plant City Auto Supply, Plant City, Fla., is now handling the **Black & Decker** line and **Blackhawk** Jacks.

ELIMINATE CARBURETOR TROUBLES CAUSED BY EXCESSIVE FUEL PUMP PRESSURE

FILT-O-REG®

COMBINATION

FUEL PRESSURE REGULATOR-FILTER

"STOPS FLOODING, STALLING, ROUGH IDLING. CUTS FUEL WASTE

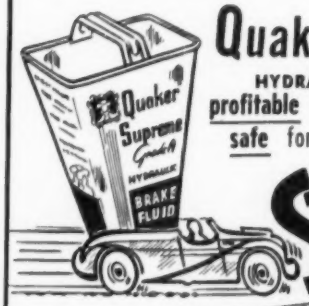
FILT-O-REG feeds the full and correct amount of filtered fuel to the carburetor at minimum pressure under any load, at all speeds and extreme weather temperatures. Exerts a maximum 2 lbs. p.s.i., constant fuel pressure on the carburetor float valve and seat. This provides the proper float level under all driving conditions. FILT-O-REG fits in the fuel line of any make or model car, truck, tractor or stationary gasoline engine. Factory set. No adjustment necessary. INSTALL FILT-O-REG ON YOUR NEXT TROUBLE ENGINE! *Complete Satisfaction Guaranteed.*

DOES THE JOB!

Send for Illustrated Folder or
ORDER FROM YOUR JOBBER

Alondra Sales, Inc., 959 Crenshaw Blvd., Los Angeles 19

Quaker Supreme
HYDRAULIC BRAKE FLUID
profitable always . . guaranteed
safe for all brake systems!



STOPS!

GIVE YOUR CUSTOMERS THE BENEFITS of Quaker Supreme Hydraulic Brake Fluid! Chemically Analyzed . . "Castor Oil Engineered" for more mobility and better performance in all brake fluid systems . . regardless of low temperatures!

PROFITABLE? YOU BET! And it's backed by a guarantee that says Quaker Supreme is supreme in its field!

SIZES: 12 ounce cans • pints • quarts • gallons • 5 gallon drums

Southeast Rep.: L. M. Hirsig Co.
Southwest Rep.: Hirsig-Frazier

Quaker Supreme Chemical Corp.
MONTGOMERY, ALABAMA

MEMA Restates View On Merger Subject

MOTOR and Equipment Manufacturers Association, New York, issued the following general bulletin June 13 to its members stating its "traditional position with regard to merger," after the latest proposal advance by General Manager B. W. Ruark of MEWA:

"In 25 years there have been more than a dozen attempts at merger. All have failed because while allegedly an autonomous manufacturer and an independent wholesaler association was proposed, there was bridged over them a permanent committee, council, or federated organization composed of suppliers and jobbers. Obviously any such dual structure definitely diluted the supposed independence of both the manufacturer and the wholesaler associations, for all practical purposes constituting one dual organization.

"Basically, establishing a joint committee of an equal number of manufacturers and wholesalers to act as a recommending body on matters and problems of mutual interest to the governing boards of the two associations for such action as they may elect to undertake jointly or separately, does not differ in principle from all the various umbilical superimposed connections proposed during the past two and a half decades.

"The better objective is to set up a wholly independent manufacturer association and an equally completely autonomous wholesaler association. Then as specific and clearly outlined matters of mutual interest arise, have the supplier and the jobber associations appoint a qualified joint committee to study and report on that specific subject, and so soon as each such joint committee has submitted its report that particular committee automatically disbands.

"By such procedure the industry really has its manufacturer association entirely under the independent control of the suppliers, as it also has its wholesaler association completely controlled by the jobbers. There then could be no question respecting the genuine autonomy of each such organization—a practical arrangement that should avoid waste of time and energy, make for improved economy and activities, and in all other ways benefit the industry."

AWDA Plans to Meet In Chicago Dec. 9-11

GENERAL membership meeting and annual conference of the Automotive Warehouse Distributors Association, Inc., will be held at the Palmer House in Chicago Dec. 9-11, President A. P. Walter of Gabriel Distributing Co., Chicago, announced.

A meeting of the board of governors on Dec. 8 will precede the general meeting. Conferences are scheduled for Dec. 10 and 11 to permit affiliate manufacturer members to meet in private session with their AWDA distributors. Open meetings will also be arranged. Martin Fromm is executive secretary, with headquarters in Kansas City, Mo.

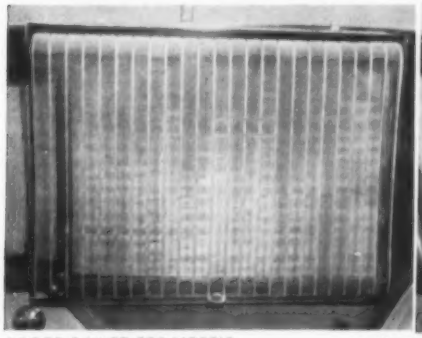
Burgess Names Atlanta Firm

The Burgess Cellulose Co. of Freeport, Ill., a division of Burgess Battery Co., has appointed "Red" Williams of N. A. Williams Co., Atlanta, Ga., to represent its line in the Southeast. Walter Frazier of Hirsig-Frazier, Inc., Dallas, Texas, represents the company in the Southwest.

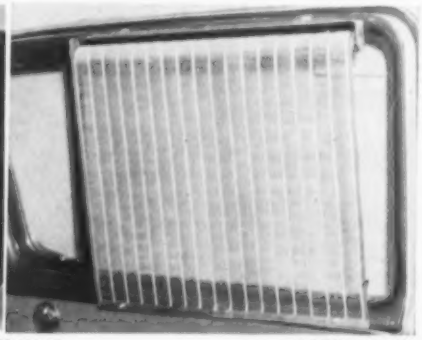
the sun drives 'em in...

and you send 'em out with

AUTO GLAR-EZ ROLLAWAY SHADES



2-DOOR & HARD TOP MODELS



PAT. PENDING

4-DOOR MODEL

FEATURES

- Lock-down clip is also handle
- Fits all Convertible & Hard Tops with metal trim above door
- Rubber bumpers protect finish
- Kaiser aluminum screening

Mfg. by

AUTO-GLAR-EZ SHADES

P. O. BOX 38 • 310 S. MAIN ST.,

LAMESA, TEXAS

NSPA Advises Members Of GM Parts Change

NATIONAL Standard Parts Association advised its membership as follows last month on the withdrawal of the GM parts plan:

"While no official, written statement has been made, it is reported that General Motors Corp. has decided to withdraw GM parts from United Motors Service distribution through independent automotive wholesalers. The parts plan will cease Dec. 31, 1957, allowing what they consider sufficient time for those participating wholesalers to adjust their business and inventories. Further, the wholesaler is privileged to discontinue at any time between now and that date. He may return his inventory at current costs, transportation collect, plus 5% handling charge, for cash credit, other outstanding credits or debits considered.

"United Motors management personnel are in the field informing their wholesalers of this decision. It is reported that the following reasons are given for the withdrawal:

"1.—The gross profit provided in the plan was not sufficient to attract a healthy distribution pattern through wholesalers;

"2.—With wholesalers providing an infinitesmal percentage of GM's parts sales, to provide at least the minimum gross profit (which would likewise be provided to GM car dealers, of legal necessity, in GM's opinion) would be economically unsound.

"The purpose of this letter is to be informative, yet provide the essentials for members of NSPA (wholesalers and manufacturers alike) to 'learn a lesson' from this experience.

"When the GM parts plan was made available to wholesalers in 1954, there existed, even though not expressed, a fear of loss of business by manufacturers and non-participating wholesalers. The record reveals such fear was unfounded.

"The GM parts plan provided a one-price level resale basis, which still exists to a great degree. Such a system has been proven profitably unsound by the withdrawal of the GM parts plan.

"The GM parts plan has provided basic information for all wholesalers and manufacturers to take a new look at what is the parts business, both from a part-category coverage and gross-profit standpoint.

"The GM car dealer has gained materially under this program by having the following unavailable privileges prior to the GM part plan:

"1.—An increased wholesale compensation.

"2.—Availability of all GM parts, including all UMS lines, AC lines and parts for all GM cars and trucks and the ability to competitively wholesale same.

"3.—Ability to wholesale to other GM car dealers, and receive wholesale compensation.

"4.—Retention of identical selling-buying terms of payment."

Atlanta Firm Hires Santovito

Alexander-Seewald Co., Atlanta, Ga., has hired R. W. "Rocky" Santovito as warehouse manager. Santovito, who was formerly with Studebaker- Packard Corp. in Atlanta and Kansas City, began as an order picker in the Atlanta warehouse. He advanced to assistant to the manager before being named field parts representative for the Kansas City zone.

CHECK YOUR STOCK – ORDER AT ONCE!

LEE FILTER CORP.
41 River Road, No. Arlington, N. J.
Warehouses:
Los Angeles, Minneapolis, Chicago, Pittsburgh, Jacksonville

NSPA Says Merger Would Liquidate It

PRESIDENT Hal Miller said last month that "complete liquidation" of National Standard Parts Association would result from the proposal by General Manager B. W. Ruark of Motor and Equipment Wholesalers Association for the formation of two associations from NSPA, MEWA and Motor and Equipment Manufacturers Association.

Said Miller, who is general manager of Womwell Automotive Parts Co., Lexington, Ky.:

"The board of directors of National Standard Parts Association, meeting on June 7, has authorized

President Miller

me to convey the following thoughts to you concerning possible merger of MEWA, NSPA and MEMA.

"There is little doubt that most members of all three associations would like to effect a merger of 'some kind' . . . but the big question is, 'What kind?'

"Mr. Ruark, general manager of MEWA, has submitted a plan in his open letter of May 15. His proposal, briefly, calls for dissolution of all three associations and the formation of two new autonomous associations — one consisting of wholesalers, the other of manufacturers. In addition, there would be one advisory council *with no authority* consisting of an equal number of wholesalers and manufacturers.

"The plain facts are that this plan calls for the complete liquidation of NSPA — its ideals — its principles—and renders impossible any further accomplishment of the myriad of services that can only be attained by a dual type of association.

"Through the years, NSPA has become the largest and the most influential association in the automotive aftermarket industry. It is a proven fact that wholesalers and manufacturers, working in harmony and for the common good of all, can accomplish more than two autonomous associations which, regardless of any advisory committee, would frequently be working against one another.

"The officers and directors of National Standard Parts Association stand ready and willing to consider any merger proposal that does not call for the liquidation of our aims, principles and ideals."

MEWA Plans to Join With Regional Shows

IN KEEPING with its policy of cooperating with established regional shows, Motor and Equipment Wholesalers Association has announced it will hold national conventions at Boston in conjunction with the New England show next May and at Miami in April, 1957, in connection with the Southeast show.

MEWA will also cooperate with the Midwest show at St. Louis and the Southwest show at Dallas.

Patterson Dies in Dallas

Gerald R. "Pat" Patterson, 50, a sales representative for Harvey-Merrithew Co. and a director of the B-4 Booster Club, died last month in Dallas, Texas, following a short illness. Patterson had lived in Dallas for 23 years, where he was formerly in the tire business.

•

Appointment of Richard A. Riley as general manager of the World Bestos Division of The Firestone Tire & Rubber Co., Akron, O., has been announced by President Lee R. Jackson. Riley, who succeeds the late William J. Nanfeldt, was formerly assistant manager.

Stock 'n sell DL for quick, easy PROFITS!

NATIONAL ADVERTISING CREATES A BIG DEMAND!

UNIVERSAL ACCEPTANCE INSURES RAPID TURNOVER!

CUT CLEANING COSTS WITH THIS DISPENSER

CONTAINER SIZES
For Dispensers, 4½ and 5 lb. For general use, 14 oz., 3 lb. and 5 gal.

It delivers just the right quantity with one pull of the lever. To refill insert 5-pound can of DL HANDI-Cleaner and throw away when empty.

The ORIGINAL Cream Type HAND CLEANER
with Hexachlorophene and Lanolin

A guaranteed and insured product that removes stubborn grime and grease gently, and thoroughly. Guards against skin infection and Dermatitis. No abrasives or solvents to irritate the skin.

First and Finest for Over Twenty Years!

DL HANDI-CLEANER . . . USE WITH OR WITHOUT WATER

Made only by
BANITE CO. BANITE BUILDING BUFFALO 4, N. Y.

 (Continued from page 15)

Texan Pushed to Run for Office Advises Watching Your Politics

KINDEL Paulk, widely known southwestern automotive wholesaler, former mayor of Wichita Falls, Texas, and current president of the Automotive Wholesalers of Texas, has offered his name as a candidate for the lower house of the Texas legislature because he considers participation in state politics his responsibility and because he believes there are too many "school boys" writing laws for the Lone Star state.

He doesn't "want" to be a legislator, but he thinks he should be. He believes the legislature needs more men of mature judgment. He is not making a campaign and doesn't expect to, but he believes he will be elected.

Paulk divulged his plans in a brief address before the second annual joint meeting of the Dallas Automotive Wholesalers Association and the Automotive Jobbers Association of Fort Worth. The address followed a dinner the night of June 21 at a cafe in Arlington, Texas, half-way point between the two cities.

Before Paulk spoke, there was a 90-second election of officers of the Dallas association. This followed a personal introduction of all present, presided over by the two presidents, Albert Taylor of Dallas and Paul Bristow of Fort Worth.

Then Hubert Braden of Dallas, chairman of that group's nominating committee, specified the following as committee choice: Morrie Giller, P-M Motor Parts, president; Sam Beeler, The Schoellkopf Co., vice-president, and Gene Stracht, Grove Auto Parts, secretary-treasurer.

Paulk — accompanied by his long-time friend and home-town competitor, R. L. "Dick" Naylor—drove the 100-odd miles from Wichita Falls to Arlington to make a 15-minute address.

He first discussed the changes that have taken place in automotive wholesaling during his 35 years in the business, warned that additional changes will develop and that "we oldsters" should have someone young in the business to take over, "someone alert enough to see the changes coming and meet them." Then he switched to the subject of politics and urged all wholesalers to take an active part.

"Maybe you don't realize it, but you are in politics, or you are a victim of politics," he said, "for it is politics that decides if there will be a one-way street in front of your business. And it is politics that decides if they will take some

FRONTIER® STEEL WORK BENCHES

Best Built—Best Buy

The bench you can depend on. Of complete steel construction — heavy duty top — 12 gauge. Legs set solid on the floor without bolts.

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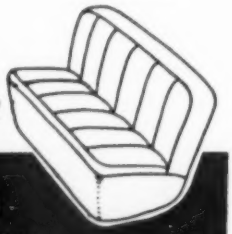

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of your property and widen the street. You had better take an interest in politics, for we are governed by politics.

"Your congressmen want suggestions and they want to know how the voters feel about questions of the day and don't you believe that your letters to congressmen don't have any influence. I was mayor of Wichita Falls and although I wanted suggestions from my friends and acquaintances, they never said anything until I did something they didn't like. Then they came to me with fire in their eyes.

"Now I am a candidate for the legislature and you may think I am a darned fool. But a group of my friends came to me and asked me to let them put up my name. And I agreed.

Can't Afford It

"Now, I just have a little two-by-four business out there in Wichita Falls. I am not a wealthy man and never expect to be wealthy. I cannot afford to go down there to Austin and spend 90 days and a good part of many nights in sessions and in committees.

"But I agreed to do it after I found out there are more than 40 school boys in that legislature. We cannot afford to have youngsters like that running our legislature, making our laws and assessing our taxes. The legislature of Texas needs men with more mature judgment.

"That's why I permitted my name to be entered and I fully expect to be elected. I don't need to make any campaign. My friends are doing the campaigning for me. That was our agreement. All I had to do was consent to have my name put up."

Paulk said he is highly proud of the Automotive Wholesalers of Texas and its executive director, G. C. Morris, because in the Washington hearings on alleged coercion, AWOT was the only state association of wholesalers in the thick of the hearing publicly and the only association with an executive director who testified.

"That's the way to do it, in my opinion," he continued. "If you are going to get into a project, get into it with all your resources. If you are going to be in a parade, be out in front waving a flag."

In addition to Paulk, Naylor and the representative of SOUTHERN AUTOMOTIVE JOURNAL, an invited guest, 29 wholesalers attended—17 from Dallas and 12 from Fort Worth.

Paulk has long been interested in association work.

Truck Body Factories See a Fine Year

THE year 1956 may well be the best year truck body manufacturers have ever known, Arthur H. Nuesse, executive manager of the Truck Body and Equipment Association, said last month.

A survey conducted among 49 members of the industry indicated that almost all expect 1956 to be an even better year than 1955, which was a record-breaker for the industry. General optimism and confidence in the future was expressed by the greater majority of industry leaders surveyed. Many cited tremendous increases in orders and backlogs, and mentioned improved models, better sales promotion, expanded facilities and generally favorable business conditions as reasons for their optimistic outlook.

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—they give extra miles of trouble-free service on taxicabs and light trucks

FLEET OWNERS have stated, again and again, on the basis of actual mileage records, that J-M Fleet Tested brake sets are the best linings ever developed for the hard, rugged daily wear and the constant stop-and-go driving required of taxicabs and commercial vehicles.

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NADA Manager Sees "Grim" Time Ahead for Dealers to End of 1956

"IT IS obvious that short of a radical and dramatic reversal of current trends, automobile dealers will be confronted with an unprecedented year-end clean-up problem accompanied by a new low in their profit position."

That's what Frederick J. Bell, the Virginian who is executive vice-president of the National Automobile Dealers Association, said last month.

His portrayal of the outlook for the remainder of this model year—vastly different from the view expressed for the Milner GM dealerships over the South on the opposite page — came in the form of a mid-year business forecast June 17 sponsored by the Chamber of Commerce of the United States and 14 trade associations.

Said Bell:

"What will happen to dealer profits during the balance of 1956? If it is true that what's past is prologue, then the picture confronting the dealer for the next six months is grim.

"Normally, the first few months after a new model has been introduced are the best months for the dealer. . . .

"The first quarter of 1956 shows an operating profit of .8%. While this figure is identical to that of the first quarter of 1954, there are two factors in today's market which indicate that dealers may well consider themselves fortunate if they do not drop below the .6% of year-end 1954. New-car registrations have been failing radically this year and inventories have continued to accumulate despite factory production cuts."

Vice-President Bell

Tire Industry to Wage Fall Safety Campaign

"SAFE Tires Save Lives" will be the theme of a fall safety campaign planned at a meeting in Cleveland, O., last month of tire industry leaders, tire dealer representatives and the Inter-Industry Highway Safety Committee.

Tire companies will work with their dealers and with dealer members of the National Tire Dealers and Retreaders Association.

"The month-long campaign, beginning in mid-September, is timed to give motorists tire safety reminders during the back-to-school season," M. R. Darlington, Jr., managing director of the Inter-Industry Committee, said.

In keeping with the emphasis on safety for school-age children, materials will be prepared to encourage children to participate in old tire roundups.

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"Our Inland-equipped radiator department took in $13,904.14 from April 11 through the following January! Helps us maintain 100 percent service absorption. And when we pull a radiator off a car we have a good chance to sell radiator hose, thermostats, water pumps, and other related items!"

YOU CAN DO AS WELL! Pierson Chevrolet Co., Vidalia, Ga., says: "Our Inland radiator repair department is the most profitable in our service department!" Robbins Motor Co., Marlow, Okla. says: "Our Inland radiator department takes in $850 a month!"

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PLEASE PRINT TITLE.....
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If Dealer, Car Sold.....Have Radiator Shop ☐ Yes ☐ No

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Milner Says Could Sell More Cars If Could Get Them; Cites Uptrend

THE Southerner who lays claim to being General Motors' biggest dealer says he could sell more cars if he could get them.

R. E. Dumas Milner, president of the Milner Enterprises, with headquarters at Jackson, Miss., and whose dealerships include Chevrolet and Pontiac in Texas, Louisiana, Arkansas, Oklahoma and Mississippi, told a New York press conference June 13:

"I have never bought anything from the factory that I did not want to buy. My business is up 24% over last year. I could sell still more cars if I could get them."

GM headquarters in New York said later his statement as to needing more cars had been referred to

R. E. Dumas Milner

Chevrolet's Central Office in Detroit and the matter would be looked into.

Milner, whose start in the industry began with the operation of a service station at Kosciusko, Miss., less than a generation ago, said his "chief concern right now is whether we will have enough cars to sell in view of the cutbacks in factory production."

(Chevrolet built its millionth vehicle of 1956 on June 15. In last year's record output the millionth was assembled June 6.)

The Mississippian said his organization had been planning for several years for the current downturn in car sales.

"When sales started to slow up," he commented, "we went into high gear. We increased our advertising budget. We paid big incentive bonuses to our salesmen."

Although his company's average profit margin per car has shrunk from $224 in 1955 to around $168, Milner said the increased volume had offset the decline. Sales the first five months of this year were up $4,000,000 over the like period last year, he reported.

Milner's Chevrolet agencies in Jackson, New Orleans, San Antonio and Fort Worth and Pontiac dealerships in Little Rock and Tulsa will spend a million dollars on advertising this year, he said, with 75% earmarked for newspapers.

The second half of this year will be "substantially" higher than the first half, he predicted. He expressed disbelief that the 20% of last year's car buyers who allegedly bought on substandard terms had been taken out of the market.

Milner agreed with the recent statement by GM President Har-

low Curtice that the tight money policy has hurt the car market, but he said some of the blame must go to last year's "maldistribution" of new cars.

The present decline in car sales is temporary, he said.

"I believe that the reason the automobile business is off the 1955 pace right now is that soft goods and some of the newer appliances like air conditioning are making a good bid for the dollar."

GM Vice-President Kyes Honored in New Orleans

ROGER M. Kyes, vice-president of General Motors and former U. S. deputy secretary of defense, was honored in New Orleans last month by the Reserve Officers Association of the United States at its annual convention.

Kyes was presented the association's highest award, the Distinguished Service Citation.

90,000 at GM Save

Approximately 90,000 of the more than 100,000 eligible General Motors salaried employees in the United States are participating in the savings-stock-purchase program introduced last October, according to President Harlow H. Curtice.

These comely twins point out the twin exhausts that are available as optional equipment at extra cost on the 1956 Oldsmobiles. The dual exhausts in this "98" are so vented that the exhaust comes out the bottom of the tailpipe and is directed towards the roadbed, avoiding any corrosion or unsightly carbon deposits on the rear bumper or deck. The three-compartment dual exhausts, integrated in the rear bumper design, minimize engine exhaust back pressure and reportedly produce a marked improvement in over-all engine performance.

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Most cylinder leaks are a result of cup failure (caused by excessive heat of modern brakes) — rather than worn or pitted cylinders.

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"The Automotive Smokers," Fort Smith's entry in the Arkansas Valley Semi-Pro Baseball League, is sponsored by The Automotive, Inc., the western unit of Ozburn, Crow & Yantis Co. Last month the team had an enviable record of eight wins and two losses, with high prospects of copping the championship in the league by August. The Smokers have for the last three years been the state representatives at the National Baseball Congress at Wichita, Kan. Some have gone on to pro baseball.

Electrical Coils of Aluminum Are Under Testing by Car Factories

SEVERAL of the nation's leading automobile manufacturers are taking part in developmental work aimed at replacing the conventional copper-wire-wound electrical coils used in cars with coils wound with aluminum strip conductor.

This was revealed at Louisville, Ky., June 24 by Dr. George Perkins, director of product development for Reynolds Metals Co., which announced several months ago the development of aluminum strip conductor interleaved with sheet insulation. Another new type of conductor was announced at the same time—aluminum strip self-insulated by an anodic film.

"These automobile manufacturers have expressed great interest in the use of aluminum strip conductor in field generator coils, horn coils, ignition coils, starter solenoid coils, and starter motor coils," Perkins said. "We are presently working with automotive engineers in perfecting the application of aluminum strip for these and other uses."

Advantages claimed for use in coils of both the strip conductor interleaved with paper, polyester films (such as Mylar) or other films and the strip conductor insulated with the anodic coating include: ease of winding, reduction of voids and reduction in thickness of insulation, reduction of layer to layer voltages, better heat transfer characteristics and elimination of many hot spot temperatures in a unit.

"Cost-wise," Perkins said, "the lower base price of aluminum makes possible savings of up to 50% in conductor costs—this in addition to the possible savings from the other advantages of this new insulating method. And, this insulation system is very simple, generally resulting in lower labor costs."

The percentage of aluminum has been steadily rising in cars during the post-World War II days. Exterior trim has been accounting for more and more of the metal. Now there is a greater movement for more under-the-hood use of aluminum as factories search for a means of lessening weight as well as lowering costs.

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Improved Model C shown has 80-gallon per hour capacity. Operates on any type gas. Fully automatic. NO MOVING PARTS.
$434.50. Other Models up to $1464.75. Easy terms.

America's most complete line of oil and gas operated steam cleaners for 30 years.
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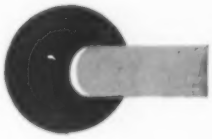

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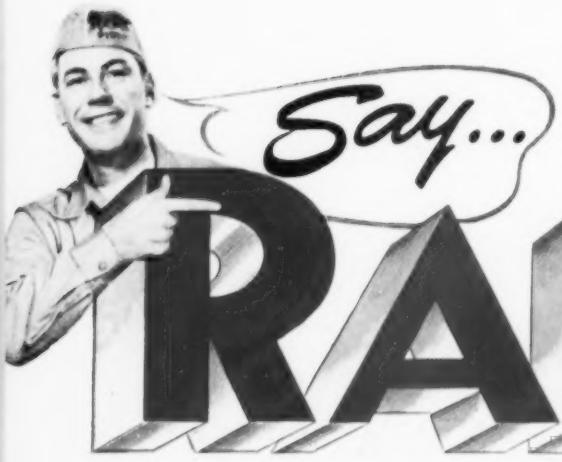

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